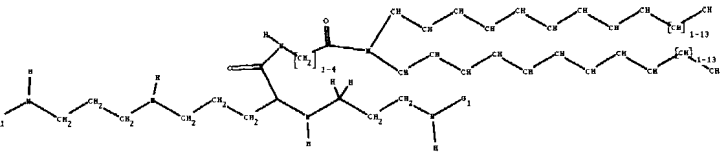
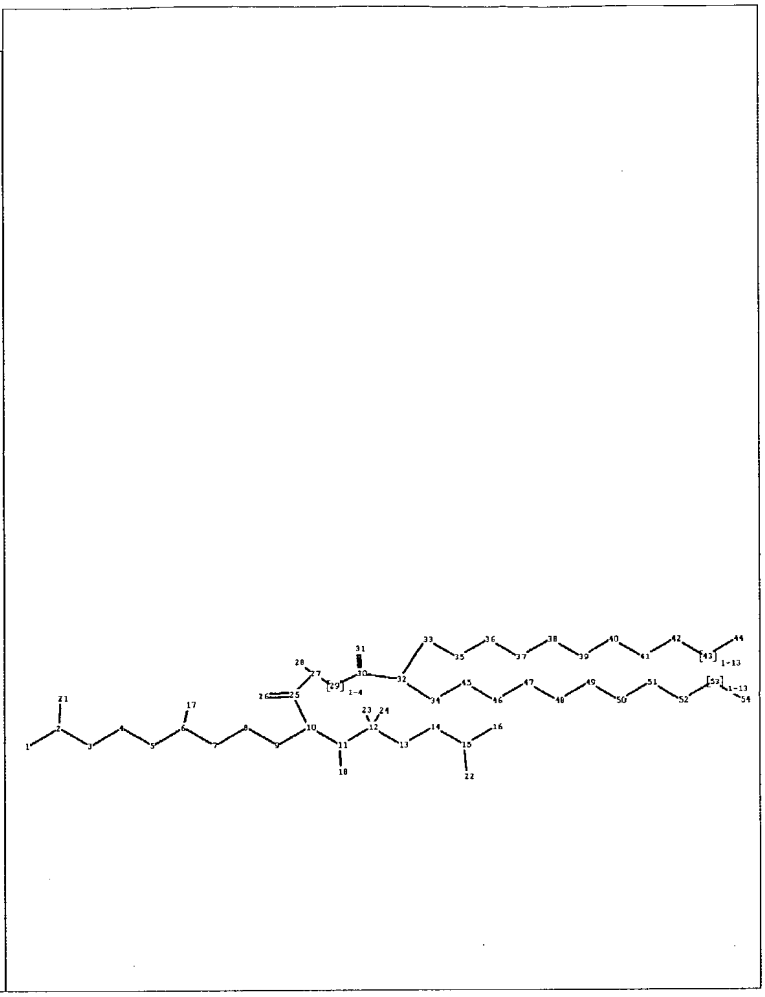
:\STNEXP4\QUERIES\036916.str





hain nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 21 22
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48 49 50 51 52 53 54

hain bonds :
1-2 2-3 2-21 3-4 4-5 5-6 6-7 6-17 7-8 8-9 9-10 10-11 10-25
11-12 11-18 12-13 12-23 12-24 13-14 14-15 15-16 15-22 25-26
25-27 27-28 27-29 29-30 30-31 30-32 32-33 32-34 33-35 34-45
35-36 36-37 37-38 38-39 39-40 40-41 41-42 42-43 43-44 45-46
46-47 47-48 48-49 49-50 50-51 51-52 52-53 53-54

xact/norm bonds :
1-2 10-11 11-12 15-16 25-26 25-27 30-31 30-32 32-33 32-34

xact bonds :
2-3 2-21 3-4 4-5 5-6 6-7 6-17 7-8 8-9 9-10 10-25 11-18
12-13 12-23 12-24 13-14 14-15 15-22 27-28 27-29 29-30 33-35
34-45 35-36 36-37 37-38 38-39 39-40 40-41 41-42 42-43 43-44
45-46 46-47 47-48 48-49 49-50 50-51 51-52 52-53 53-54

1:C,H,O

atch level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS
9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS
16:CLASS 17:CLASS 18:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS
25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS
32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS
39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS
46:CLASS

47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS
53:CLASS 54:CLASS

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssptau129pxo

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	SEP 09	CA/CAplus records now contain indexing from 1907 to the present
NEWS 4	DEC 08	INPADOC: Legal Status data reloaded
NEWS 5	SEP 29	DISSABS now available on STN
NEWS 6	OCT 10	PCTFULL: Two new display fields added
NEWS 7	OCT 21	BIOSIS file reloaded and enhanced
NEWS 8	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 9	NOV 24	MSDS-CCOHS file reloaded
NEWS 10	DEC 08	CABA reloaded with left truncation
NEWS 11	DEC 08	IMS file names changed
NEWS 12	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS 13	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAplus
NEWS 14	DEC 17	DGENE: Two new display fields added
NEWS 15	DEC 18	BIOTECHNO no longer updated
NEWS 16	DEC 19	CROPU no longer updated; subscriber discount no longer available
NEWS 17	DEC 22	Additional INPI reactions and pre-1907 documents added to CAS databases
NEWS 18	DEC 22	IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS 19	DEC 22	ABI-INFORM now available on STN
NEWS 20	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS 21	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/CAplus
NEWS 22	FEB 05	German (DE) application and patent publication number format changes
NEWS 23	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS 24	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS 25	MAR 03	FRANCEPAT now available on STN
NEWS 26	MAR 29	Pharmaceutical Substances (PS) now available on STN
NEWS 27	MAR 29	WPIFV now available on STN
NEWS 28	MAR 29	No connect hour charges in WPIFV until May 1, 2004
NEWS 29	MAR 29	New monthly current-awareness alert (SDI) frequency in RAPRA

NEWS EXPRESS	MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items

NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 05:17:48 ON 05 APR 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 05:17:53 ON 05 APR 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 APR 2004 HIGHEST RN 670748-16-0
DICTIONARY FILE UPDATES: 2 APR 2004 HIGHEST RN 670748-16-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\STNEXP4\QUERIES\036916.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.

=> s l1

```
SAMPLE SEARCH INITIATED 05:27:48 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    180 TO ITERATE

100.0% PROCESSED     180 ITERATIONS                                  0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         2796 TO     4404
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> search l1
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full
FULL SEARCH INITIATED 05:27:57 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   3239 TO ITERATE

100.0% PROCESSED    3239 ITERATIONS                                  7 ANSWERS
SEARCH TIME: 00.00.01

L3            7 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   162.14     162.35

FILE 'CAPLUS' ENTERED AT 05:28:04 ON 05 APR 2004
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FILE COVERS 1907 - 5 Apr 2004  VOL 140 ISS 15
FILE LAST UPDATED: 4 Apr 2004  (20040404/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l3
L4          131 L3

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.44     162.79
```

FILE 'REGISTRY' ENTERED AT 05:28:20 ON 05 APR 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 2 APR 2004 HIGHEST RN 670748-16-0
DICTIONARY FILE UPDATES: 2 APR 2004 HIGHEST RN 670748-16-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

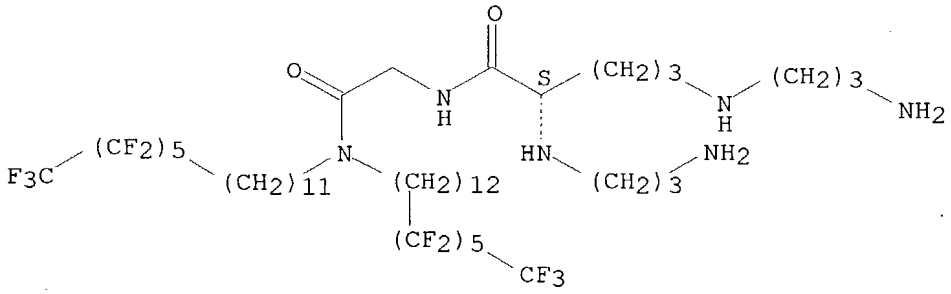
=> d l3 1-7

L3 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 326890-62-4 REGISTRY
CN Glycinamide, N5-(3-aminopropyl)-N2-(3-aminopropyl)-L-ornithyl-N-
(12,12,13,13,14,14,15,15,16,16,17,17,17-tridecafluoroheptadecyl)-N-
(13,13,14,14,15,15,16,16,17,17,18,18,18-tridecafluorooctadecyl)-,
tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C48 H74 F26 N6 O2 . 4 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

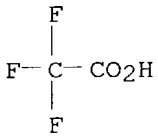
CRN 326890-61-3
CMF C48 H74 F26 N6 O2

Absolute stereochemistry.



CM 2

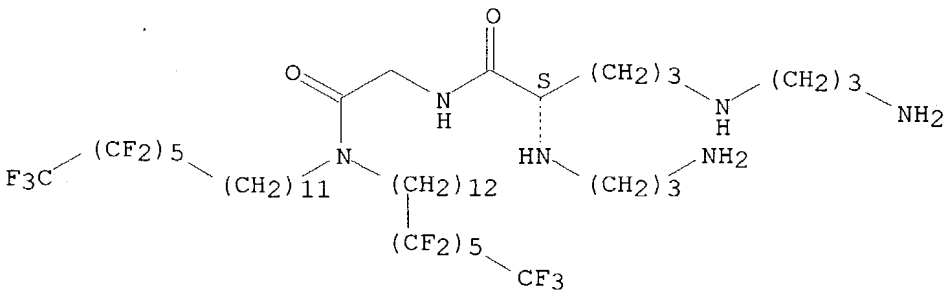
CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 326890-61-3 REGISTRY
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N-(12,12,13,13,14,14,15,15,16,16,17,17,17-tridecafluoroheptadecyl)-N-(13,13,14,14,15,15,16,16,17,17,18,18,18-tridecafluorooctadecyl)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C48 H74 F26 N6 O2
CI COM
SR CA

Absolute stereochemistry.



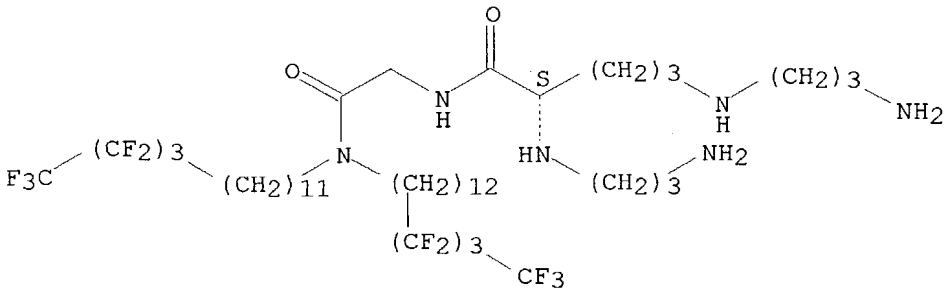
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 326890-60-2 REGISTRY
CN Glycinamide, N5-(3-aminopropyl)-N2-(3-aminopropyl)-L-ornithyl-N-(13,13,14,14,15,15,16,16,16-nonafluorohexadecyl)-N-(12,12,13,13,14,14,15,15,15-nonafluoropentadecyl)-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C44 H74 F18 N6 O2 . 4 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

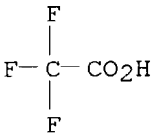
CRN 326890-59-9
CMF C44 H74 F18 N6 O2

Absolute stereochemistry.



CM 2

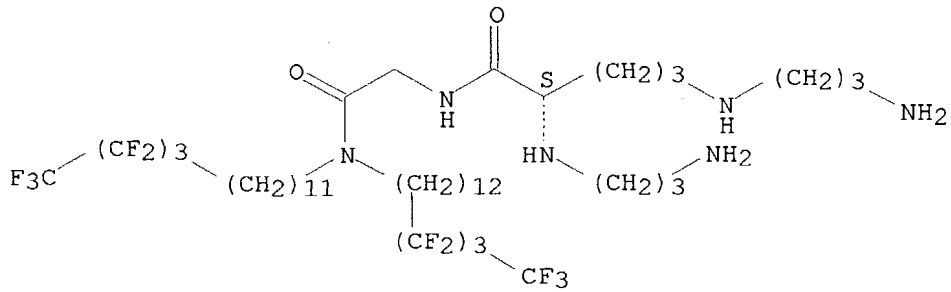
CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 326890-59-9 REGISTRY
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N-(13,13,14,14,15,15,16,16,16-nonafluorohexadecyl)-N-(12,12,13,13,14,14,15,15,15-nonafluoropentadecyl)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C44 H74 F18 N6 O2
CI COM
SR CA

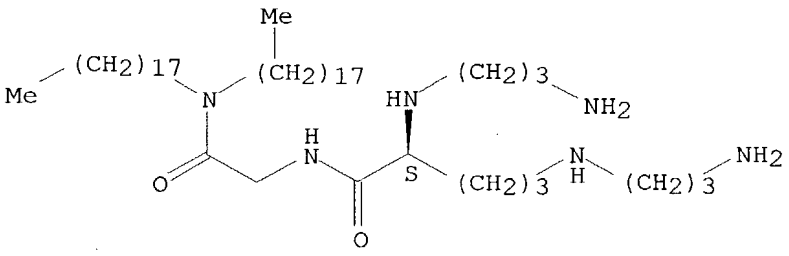
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 158730-52-0 REGISTRY
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, conjugate triacid (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C49 H102 N6 O2 . 3 H
SR CA
LC STN Files: CA, CAPLUS
CRN (124050-77-7)

Absolute stereochemistry.



● 3 H^+

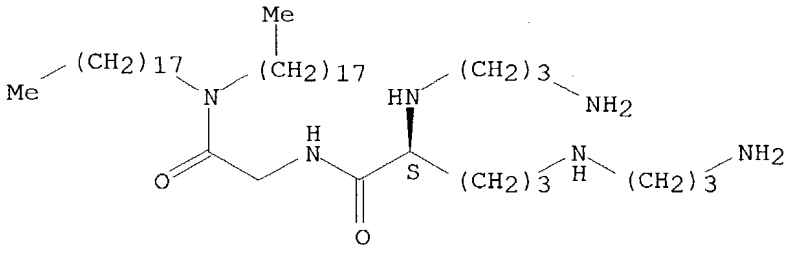
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 124050-78-8 REGISTRY
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C49 H102 N6 O2 . 4 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

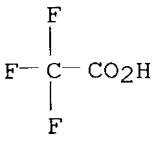
CRN 124050-77-7
CMF C49 H102 N6 O2

Absolute stereochemistry.



CM 2

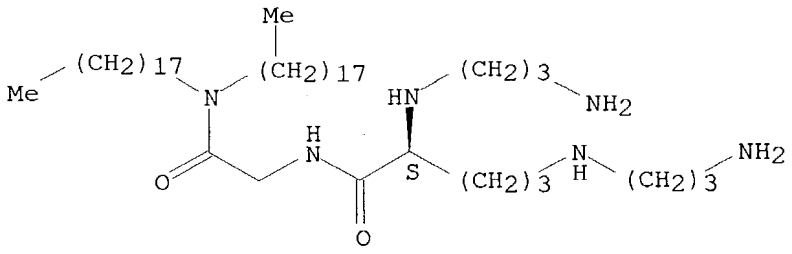
CRN 76-05-1
CMF C2 H F3 O2



4 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2004 ACS on STN
RN 124050-77-7 REGISTRY
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN DOGS
CN DOGS (peptide)
CN Transfectam
FS STEREOSEARCH
MF C49 H102 N6 O2
CI COM
SR CA
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, DIOGENES, MEDLINE, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

125 REFERENCES IN FILE CA (1907 TO DATE)
10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
125 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 124050-77-7/rn
L5 1 124050-77-7/RN

=> d his

(FILE 'HOME' ENTERED AT 05:17:48 ON 05 APR 2004)

```
     FILE 'REGISTRY' ENTERED AT 05:17:53 ON 05 APR 2004
L1                STRUCTURE UPLOADED
L2              0 S L1
L3              7 SEARCH L1 FULL

     FILE 'CAPLUS' ENTERED AT 05:28:04 ON 05 APR 2004
L4            131 S L3

     FILE 'REGISTRY' ENTERED AT 05:28:20 ON 05 APR 2004
L5              1 S 124050-77-7/RN

=> s l3 not l5
L6              6 L3 NOT L5

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                      14.49     177.28

FILE 'CAPLUS' ENTERED AT 05:31:11 ON 05 APR 2004
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FILE COVERS 1907 - 5 Apr 2004  VOL 140 ISS 15
FILE LAST UPDATED: 4 Apr 2004  (20040404/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> s l6
L7              7 L6

=> s l5
L8            125 L5

=> s l7 and l8
L9              1 L7 AND L8

=> l7 not l9
L7 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
```

	ENTRY	SESSION
FULL ESTIMATED COST	2.19	179.47

FILE 'CAPLUS' ENTERED AT 05:33:59 ON 05 APR 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 5 Apr 2004 VOL 140 ISS 15
FILE LAST UPDATED: 4 Apr 2004 (20040404/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l7 fbib ab hitstr 1-7

L7 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:138 CAPLUS
DN 134:183415
TI Highly Fluorinated Lipospermines for Gene Transfer: Synthesis and Evaluation of Their in Vitro Transfection Efficiency
AU Gaucheron, Jerome; Santaella, Catherine; Vierling, Pierre
CS Laboratoire de Chimie Bio-Organique, UMR 6001 CNRS Universite de Nice Sophia-Antipolis, Nice, 06108, Fr.
SO Bioconjugate Chemistry (2001), 12(1), 114-128
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB Fluorinated double-chain lipospermines (one or both of these chains being ended by a highly fluorinated tail of various length) which are close analogs of DOGS (Transfectam) were designed as synthetic vectors for gene delivery. For N/P ratios (N = number of amine functions of the lipid; P = number of DNA phosphates) from 0.8 to 10, these lipospermines condensed DNA, with or without the use of DOPE, to form fluorinated lipoplexes. The efficiency of the fluorinated lipoplexes to transfect lung epithelial A549 cells was significantly higher than that of the DOGS lipoplexes. No specific cell toxicity was evidenced for the fluorinated lipoplexes as compared to that of the DOGS ones. The palette of structural elements explored allowed to determine those required for efficient transfection, highlighting the importance of highly fluorinated chains, the unique properties of unsatd. double-chain lipids and of the use of DOPE as helper lipid on transfection.
IT **326890-60-2P 326890-62-4P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and transfection efficiency of fluorinated lipospermines for

gene transfer)

RN 326890-60-2 CAPLUS

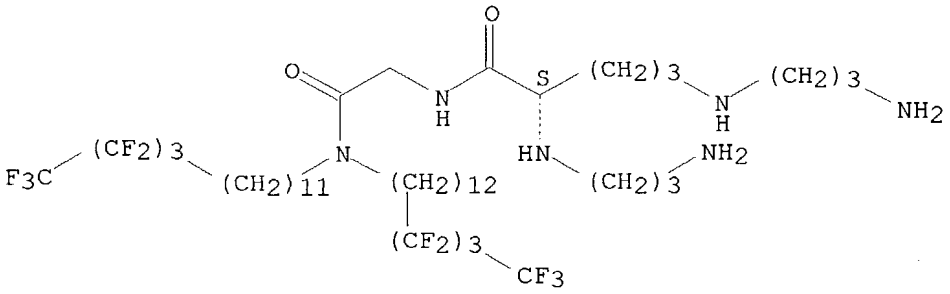
CN Glycinamide, N5-(3-aminopropyl)-N2-(3-aminopropyl)-L-ornithyl-N-(13,13,14,14,15,15,16,16,16-nonafluorohexadecyl)-N-(12,12,13,13,14,14,15,15,15-nonafluoropentadecyl)-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 326890-59-9

CMF C44 H74 F18 N6 O2

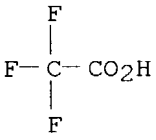
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



RN 326890-62-4 CAPLUS

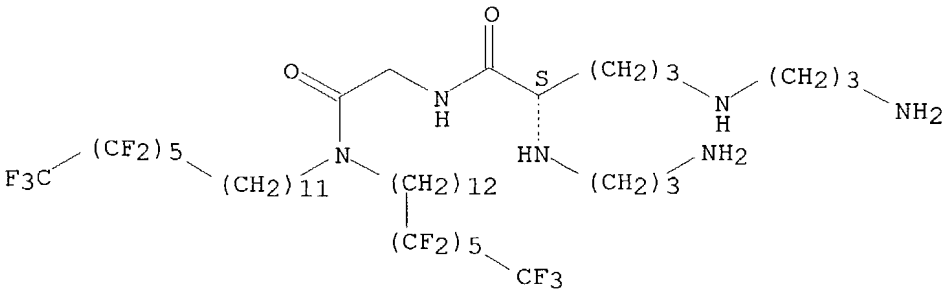
CN Glycinamide, N5-(3-aminopropyl)-N2-(3-aminopropyl)-L-ornithyl-N-(12,12,13,13,14,14,15,15,16,16,17,17,17-tridecafluoroheptadecyl)-N-(13,13,14,14,15,15,16,16,17,17,18,18,18-tridecafluorooctadecyl)-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 326890-61-3

CMF C48 H74 F26 N6 O2

Absolute stereochemistry.



CM 2

CRN 76-05-1
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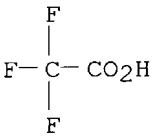

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:686600 CAPLUS
DN 131:303431
TI Separation of active complexes such as polynucleotide-transfecting component complexes
IN Szoka, Francis C., Jr.; Xu, Yuhong; Wang, Jinkang
PA The Regents of the University of California, USA
SO U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 92,200, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 7

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PATENT FAMILY INFORMATION:

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FAN 1998:621076

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AB The invention separates defined, active complexes by a characteristic from defined, active complexes that share a particular physicochem. characteristic such as d., surface charge or particle size are separated from complexes formed by the association of a polynucleotide with a transfecting component that increases transfection activity, such as a lipid, cationic lipid, liposome, peptide, cationic peptide, dendrimer or polycation. In a preferred embodiment, polynucleotide-transfecting component complexes are ultracentrifuged to resolve one or more bands corresponding to complexes having a specific polynucleotide-transfecting component interaction. Polynucleotide complexes having a cationic liposome transfecting component

resolve into two primary bands corresponding to complexes formed either under excess lipid conditions or under excess polynucleotide conditions. In an alternate embodiment, polynucleotide-transfecting component complexes are resolved using cross-flow electrophoresis to identify complexes having specific interactions and to sep. them from excess initial components. An example is give for the prepn of spermine-5-carboxyglycin (N'-stearyl-N'-oleyl)amide.

IT **124050-78-8**, Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, tetrakis(trifluoroacetate)
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(separation of active complexes such as polynucleotide-transfecting component complexes)

RN 124050-78-8 CAPLUS

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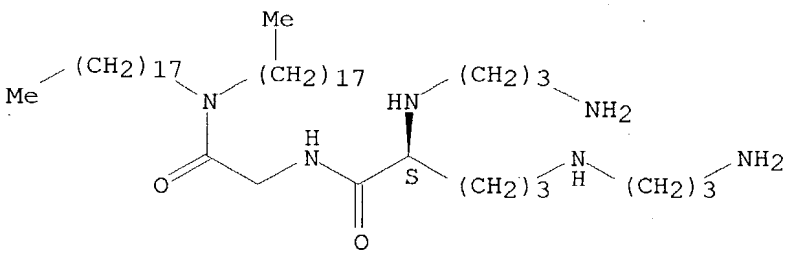
Absolute stereochemistry.



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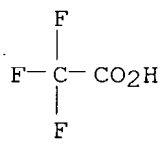

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:621076 CAPLUS
DN 129:265462
TI Dry powder formulations of polynucleotide complexes for inhalation delivery to the respiratory tract
IN Szoka, Francis C., Jr.; Rolland, Alain; Wang, Jinkang
PA Regents of the University of California, USA

SO U.S., 31 pp., Cont.-in-part of U.S. Ser. No. 482,110.
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DT Patent
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                                            WO 1994-US7916 W 19940714
FAN  1997:134871
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
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PI   WO 9640264         A1   19961219       WO 1996-US7824   19960528
        W:  AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
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RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

			US 1995-482110 A	19950607
US 5972600	A	19991026	US 1995-482110	19950607
			US 1992-864876 B219920403	
			US 1992-913669 B219920714	
			US 1993-92200 B219930714	
AU 9660248	A1	19961230	AU 1996-60248	19960528
AU 714526	B2	20000106		
			US 1995-482110 A	19950607
			WO 1996-US7824 W	19960528
EP 831923	A1	19980401	EP 1996-917839	19960528

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

			US 1995-482110 A	19950607
			WO 1996-US7824 W	19960528
JP 2001517061	T2	20011002	JP 1997-500774	19960528
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			WO 1996-US7824 W	19960528

FAN 1997:140261

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9640265	A1	19961219	WO 1996-US7866	19960528

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

			US 1995-485430 A	19950607
CA 2223921	AA	19961219	CA 1996-2223921	19960528
			US 1995-485430 A	19950607
AU 9659381	A1	19961230	AU 1996-59381	19960528
AU 707734	B2	19990715		
			US 1995-485430 A	19950607
			WO 1996-US7866 W	19960528
EP 833667	A1	19980408	EP 1996-916714	19960528

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

			US 1995-485430 A	19950607
			WO 1996-US7866 W	19960528
JP 2001516329	T2	20010925	JP 1997-500793	19960528
			US 1995-485430 A	19950607
			WO 1996-US7866 W	19960528
AU 9921179	A1	19990513	AU 1999-21179	19990315
AU 720187	B2	20000525		
			US 1995-485430 A	19950607
			AU 1996-59381 A3	19960528

FAN 1997:145224

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9641873	A1	19961227	WO 1996-US7867	19960528

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML
US 1995-482254 A 19950609

US 5811406 A 19980922 US 1995-482254 19950609
US 1995-482110 A219950607
US 1995-485430 A219950607

AU 9659382 A1 19970109 AU 1996-59382 19960528
AU 708179 B2 19990729
US 1995-482254 A 19950609
WO 1996-US7867 W 19960528

EP 836645 A1 19980422 EP 1996-916715 19960528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI
US 1995-482254 A 19950609
WO 1996-US7867 W 19960528

JP 11507922 T2 19990713 JP 1997-503085 19960528
US 1995-482254 A 19950609
WO 1996-US7867 W 19960528

FAN 1999:686600

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5972600	A	19991026	US 1995-482110	19950607
			US 1992-864876	B219920403
			US 1992-913669	B219920714
			US 1993-92200	B219930714
EP 1236473	A2	20020904	EP 2002-1408	19930405
EP 1236473	A3	20030115		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
US 1992-864876 A 19920403
US 1992-913669 A 19920714
EP 1993-909508 A319930405

US 6113946 A 20000905 US 1995-469433 19950606
US 1992-864876 B219920403
US 1992-913669 B219920714
US 1993-92200 B119930714

US 5661025 A 19970826 US 1995-480463 19950607
US 1992-864876 B219920403
US 1992-913669 A219920714
US 1993-92200 B319930714

US 5990089 A 19991123 US 1995-486826 19950607
US 1992-864876 B219920403
US 1992-913669 B219920714
US 1993-92200 B319930714

US 5811406 A 19980922 US 1995-482254 19950609
US 1995-482110 A219950607
US 1995-485430 A219950607

CA 2223934 AA 19961219 CA 1996-2223934 19960528
US 1995-482110 A 19950607

WO 9640264 A1 19961219 WO 1996-US7824 19960528
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT,
LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
SG, SI
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML
US 1995-482110 A 19950607

AU 9660248 A1 19961230 AU 1996-60248 19960528
AU 714526 B2 20000106
US 1995-482110 A 19950607

				WO 1996-US7824 W 19960528
EP 831923		A1	19980401	EP 1996-917839 19960528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1995-482110 A 19950607
				WO 1996-US7824 W 19960528
JP 2001517061		T2	20011002	JP 1997-500774 19960528
				US 1995-482110 A 19950607
				WO 1996-US7824 W 19960528
JP 2004000245		A2	20040108	JP 2003-200068 20030722
				US 1992-864876 A 19920403
				US 1992-913669 A 19920714
				JP 1993-517793 A319930405

AB Polynucleotide complexes are stabilized by adding a cryoprotectant compound and lyophilizing the resulting formulation. The lyophilized formulations are milled or sieved into a dry powder formulation which may be used to deliver the polynucleotide complex. Delivery of the polynucleotide to a desired cell tissue is accomplished by contacting the tissue with the powder to rehydrate it. In a preferred embodiment, a dry powder formulation is used to transfer genetic information to the cells of the respiratory tract.

IT **124050-78-8D**, polynucleotide complexes
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dry powder formulations of polynucleotide complexes for inhalation delivery to the respiratory tract)

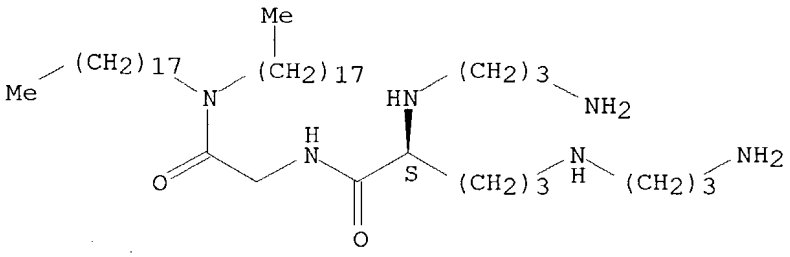
RN 124050-78-8 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

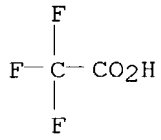
CRN 124050-77-7
CMF C49 H102 N6 O2

Absolute stereochemistry.



CM 2

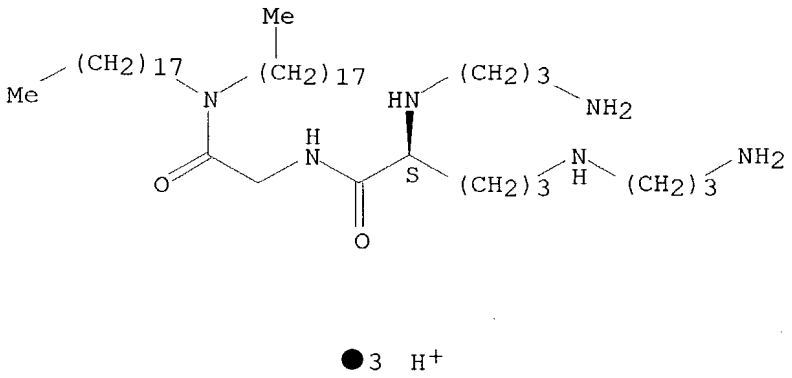
CRN 76-05-1
CMF C2 H F3 O2



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:249036 CAPLUS
DN 124:308853
TI Mechanism of DNA Release from Cationic Liposome/DNA Complexes Used in Cell Transfection
AU Xu, Yuhong; Szoka, Francis C. Jr.
CS Department of Biophysics, State University of New York, Buffalo, NY, 14214, USA
SO Biochemistry (1996), 35(18), 5616-23
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB To understand how DNA is released from cationic liposome/DNA complexes in cells, we investigated which biomols. mediate release of DNA from a complex with cationic liposomes. Release from monovalent[1,2-dioleoyl-3-(trimethylammonio)propane] or multivalent (dioctadecylamidoglycylspermine) lipids was quantified by an increase of ethidium bromide (EtBr) fluorescence. Plasmid sensitivity to DNAse I degradation was examined using changes in plasmid migration on agarose gel electrophoresis. Phys. separation of the DNA from the cationic lipid was confirmed and quantified on sucrose d. gradients. Anionic liposomes containing compns. that mimic the cytoplasmic-facing monolayer of the plasma membrane (e.g. phosphatidylserine) rapidly released DNA from the complex. Release occurred near a 1/1 charge ratio (-/+) and was unaffected by ionic strength or ion type. Water soluble mols. with a high neg. linear charge d. such as dextran sulfate or heparin also released DNA. However, ionic water soluble mols. such as ATP, tRNA, DNA, poly(glutamic acid), spermidine, spermine, or histone did not, even at a 100-fold charge excess (-/+). On the basis of these results, we propose that after the cationic lipid/DNA complex is internalized into cells by endocytosis it destabilizes the endosomal membrane. Destabilization induces flip-flop of anionic lipids from the cytoplasmic-facing monolayer, which laterally diffuse into the complex and form a charge neutral ion pair with the cationic lipids. This results in displacement of the DNA from the cationic lipid and release of the DNA into cytoplasm. This mechanism accounts for a variety of observations on cationic lipid/DNA complex-cell interactions.
IT **158730-52-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(release of DNA from in cell transfection from monovalent[1,2-dioleoyl-3-(trimethylammonio)propane] or multivalent (dioctadecylamidoglycylspermine) lipids was quantified)
RN 158730-52-0 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, conjugate triacid (9CI) (CA INDEX NAME)

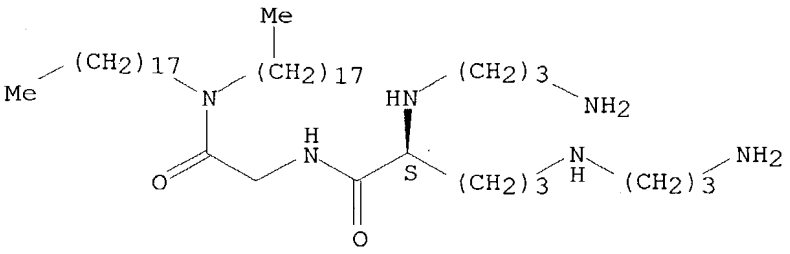
Absolute stereochemistry.



●3 H^+

L7 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:647368 CAPLUS
DN 121:247368
TI Gene Transfer with a Series of Lipophilic DNA-Binding Molecules
AU Remy, Jean-Serge; Sirlin, Claude; Vierling, Pierre; Behr, Jean-Paul
CS Laboratoire de Chimie genetique, Faculte de Pharmacie de Strasbourg, Illkirch, F-67401, Fr.
SO Bioconjugate Chemistry (1994), 5(6), 647-54
CODEN: BCCHES; ISSN: 1043-1802
DT Journal
LA English
AB Synthetic gene transfer vectors could be an attractive alternative to biol. vehicles for gene therapy. In an effort to improve the previously developed lipopolyamine-mediated transfection technique, various amphiphilic DNA-binding mols. have been synthesized. Besides Transfectam, several lipospermines display very high gene delivery levels. The structure-activity relation obtained points to the central role played by the polyamine headgroup in condensing the plasmid and binding it to the cell surface, provided the hydrophobic moiety is capable to generate nonmicellar mesomorphic structures. It also highlights other favorable (albeit more speculative) properties shared by protonable lipospermines as compared to quaternary ammonium-bearing lipids, such as their ability to act as a buffer and their strong affinity for chromatin. The former property may prevent the pH decrease along the degradative lysosomial pathway. The ability to bind to chromatin even in the presence of endogeneous polyamines should have two consequences: a nuclear tropism of the transfecting particles and plasmid uncoating in the nucleus by competitive dilution of the lipopolyamine into an ocean of DNA.
IT **158730-52-0P**
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(preparation of and gene transfer with series of lipophilic DNA-binding mols.)
RN 158730-52-0 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, conjugate triacid (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 3 H^+

L7 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:246827 CAPLUS
DN 114:246827
TI Preparation of spermine carboxamides containing fatty acyl or fatty alkyl moieties: transfection of eukaryotes
IN Behr, Jean Paul; Loeffler, Jean Philippe
PA Centre National de la Recherche Scientifique, Fr.
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 394111	A1	19901024	EP 1990-401020	19900413
	EP 394111	B1	19970604		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
				FR 1989-5037	19890417
	FR 2645866	A1	19901019	FR 1989-5037	19890417
	FR 2645866	B1	19910705		
	FR 2646161	A1	19901026	FR 1989-9933	19890724
	FR 2646161	B1	19910705		
				FR 1989-5037	19890417
	CA 2014518	AA	19901017	CA 1990-2014518	19900412
				FR 1989-5037	19890417
	IL 94077	A1	19941229	IL 1990-94077	19900412
				FR 1989-5037	19890417
	AT 154035	E	19970615	AT 1990-401020	19900413
				FR 1989-5037	19890417
	ES 2104593	T3	19971016	ES 1990-401020	19900413
				FR 1989-5037	19890417
	JP 02292246	A2	19901203	JP 1990-99472	19900417
				FR 1989-5037	19890417
	US 5171678	A	19921215	US 1990-509788	19900417
				FR 1989-5037	19890417
	US 5476962	A	19951219	US 1994-191068	19940203
				FR 1989-5037	19890417
				US 1990-509788	19900417
				US 1992-922887	19920731
	US 5616745	A	19970401	US 1995-477690	19950607
				FR 1989-5037	19890417
				US 1990-509788	19900417
				US 1992-922887	19920731

US 1994-191068 19940203

OS MARPAT 114:246827

AB H2N[(CHR)mNH]nH [n = 1-5 integer; m = 2-6 integer; R = H, R1R2NCOCHR5NHCO; R1, R2 = C12-22-aliphatic radical; R5 = H, (phenyl)C1-4-alkyl, Q; X = CH2, CO; R3, R4 = C11-21-aliphatic radical] and their analogs and salts were prepared H2N(CH2)3NH(CH2)3CH(CO2H)N((CO2CMe3) (CH2)3NH2 (preparation given) was condensed with H2NCH2CON[(CH2)17Me]2 in methylene chloride containing dicyclohexylcarbodiimide to give, after deprotection with CF3CO2H, H2N(CH2)3NH(CH2)3CH[CONHCH2CON[(CH2)17Me]2]NH(CH2)3NH2·4CF3CO2H (I). The transfection of melanotropic cells with a plasmid containing a chloramphenicol acetyl transferase expression vector via incubation with I in Dulbecco Modified Essential Medium was studied.

IT **124050-78-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as vector for eukaryote transfection)

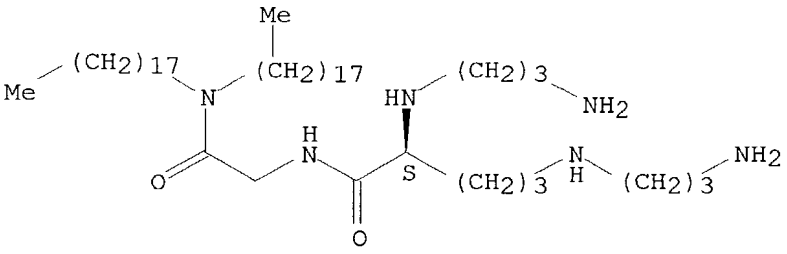
RN 124050-78-8 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 124050-77-7
CMF C49 H102 N6 O2

Absolute stereochemistry.



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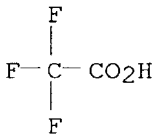
CRN 76-05-1
CMF C2 H F3 O2



L7 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:1996 CAPLUS

DN 112:1996

TI Efficient gene transfer into mammalian primary endocrine cells with lipopolyamine-coated DNA

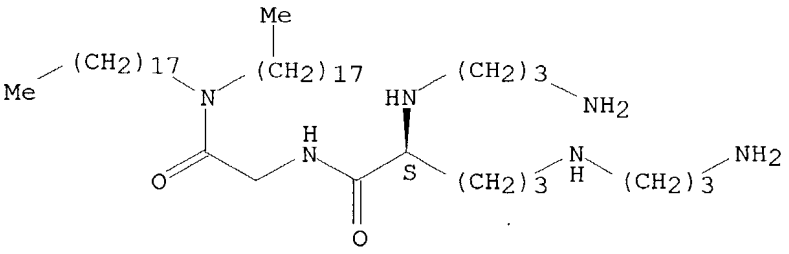
AU Behr, Jean Paul; Demeneix, Barbara; Loeffler, Jean Philippe; Perez-Mutul,

Jose
CS Lab. Chim. Org. Phys., Inst. Le Bel, Strasbourg, F67000, Fr.
SO Proceedings of the National Academy of Sciences of the United States of America (1989), 86(18), 6982-6
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
AB A general and efficient transfection procedure, based on compacted lipopolyamine-coated plasmids, was developed. The active species is obtained by simple addition of excess synthetic lipospermine solution to the DNA. This binds within min to the cell membrane. This technique has been developed for endocrine cells of the intermediate lobe of the pituitary as a general tool for physiol. work on primary cells; it is not toxic and does not interfere with physiol. regulations in melanotrope cells. A variety of eukaryotic cell cultures also have been transfected successfully and exhibited transient and stable expression.
IT **124050-78-8D**, complexes with DNA
RL: PRP (Properties)
(efficient transformation of porcine primary endocrine cells and animal cell lines with)
RN 124050-78-8 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-, tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 124050-77-7
CMF C49 H102 N6 O2

Absolute stereochemistry.



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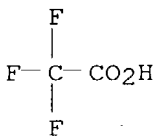
CRN 76-05-1
CMF C2 H F3 O2



RL: PREP (Preparation)
(prepn. of

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L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:246827 CAPLUS
DN 114:246827
TI Preparation of spermine carboxamides containing fatty acyl or fatty alkyl moieties: transfection of eukaryotes
IN Behr, Jean Paul; Loeffler, Jean Philippe
PA Centre National de la Recherche Scientifique, Fr.
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 394111	A1	19901024	EP 1990-401020	19900413
	EP 394111	B1	19970604		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
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	FR 2645866	A1	19901019	FR 1989-5037	19890417
	FR 2645866	B1	19910705		
	FR 2646161	A1	19901026	FR 1989-9933	19890724
	FR 2646161	B1	19910705		
				FR 1989-5037	19890417
	CA 2014518	AA	19901017	CA 1990-2014518	19900412
				FR 1989-5037	19890417
	IL 94077	A1	19941229	IL 1990-94077	19900412
				FR 1989-5037	19890417
	AT 154035	E	19970615	AT 1990-401020	19900413
				FR 1989-5037	19890417
	ES 2104593	T3	19971016	ES 1990-401020	19900413
				FR 1989-5037	19890417
	JP 02292246	A2	19901203	JP 1990-99472	19900417
				FR 1989-5037	19890417
	US 5171678	A	19921215	US 1990-509788	19900417
				FR 1989-5037	19890417
	US 5476962	A	19951219	US 1994-191068	19940203
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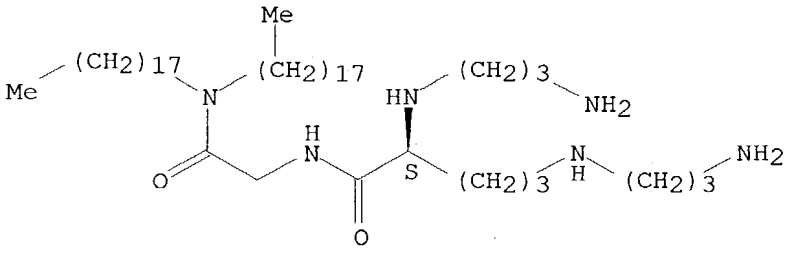
				US 1990-509788	19900417
				US 1992-922887	19920731
	US 5616745	A	19970401	US 1995-477690	19950607
				FR 1989-5037	19890417
				US 1990-509788	19900417
				US 1992-922887	19920731
				US 1994-191068	19940203

OS MARPAT 114:246827
AB H2N[(CHR)mNH]nH [n = 1-5 integer; m = 2-6 integer; R = H, R1R2NCOCHR5NHCO; R1, R2 = C12-22-aliphatic radical; R5 = H, (phenyl)C1-4-alkyl, Q; X = CH2, CO; R3, R4 = C11-21-aliphatic radical] and their analogs and salts were prepared H2N(CH2)3NH(CH2)3CH(CO2H)N((CO2CMe3) (CH2)3NH2 (preparation given) was condensed with H2NCH2CON[(CH2)17Me]2 in methylene chloride containing dicyclohexylcarbodiimide to give, after deprotection with CF3CO2H, H2N(CH2)3NH(CH2)3CH[CONHCH2CON[(CH2)17Me]2]NH(CH2)3NH2·4CF3CO2H (I). The transfection of melanotropic cells with a plasmid containing a chloramphenicol acetyl transferase expression vector via incubation with I in Dulbecco Modified Essential Medium was studied.

IT **124050-77-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

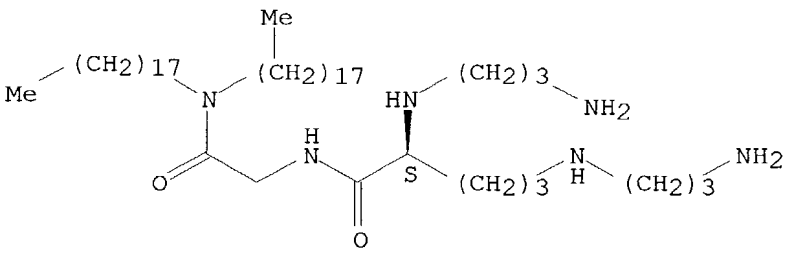


IT **124050-78-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as vector for eukaryote transfection)
RN 124050-78-8 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl-,
tetrakis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 124050-77-7
CMF C49 H102 N6 O2

Absolute stereochemistry.



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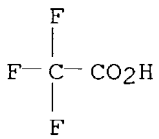
CRN 76-05-1
CMF C2 H F3 O2



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L8 ANSWER 1 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:697028 CAPLUS
DN 139:224472
TI Characterization of human deoxyribonuclease-1-like-3 activity, its association with systemic lupus erythematosus, and regulation and use thereof in gene therapy
IN Schneider, Michael C.; Wilbur, Andrew
PA Southern Illinois University, USA
SO PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003072741	A2	20030904	WO 2003-US5654	20030226
	WO 2003072741	A3	20031224		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002-359619PP 20020226

AB The present invention relates to human DNase-1-like-3 (D1L3, DNASE1L3, or D3), a distinct member of DNASE1 gene family that has a longer C-terminal extension. D1L3 hydrolyzes lipid-complexed DNA and decreases transfection efficiency in liposomal transfection (lipofection) systems, thus D1L3 is a barrier to liposomal gene transfection. The potent BT activity is demonstrated in an assay using green fluorescent protein (GFP) expression plasmid complexed with a lipid reagent that is transfected into HeLa cells incubated in control media, and D1L3-conditioned media, or D1(DNASE1)-conditioned media. In fact, BT-activity does not require intrinsic expression of D1L3 since circulation of this macrophage-secreted enzyme in the serum can distribute this protective effect throughout tissues. Furthermore, D1L3 unique C-terminus is required for BT Activity. Accordingly, D1L3 provides a more accurate test of the efficiency of lipid/liposomal based gene therapy than current stds. using DNase 1 (D1). Moreover, it has been found that mice with systemic lupus erythematosus (lupus) have lowered D1L3 activity. Therefore, differing therapeutic benefits may result from either the upward or downward therapeutic regulation of D1L3 activity. For example, blocking D1L3 activity enhances liposomal transfection for gene therapy, while increasing D1L3 activity may enhance destruction of pathogenic DNA, whether viral, bacterial or endogenous. Destruction of pathogenic DNA may provide treatment for lupus, or viral and oncogenic diseases.

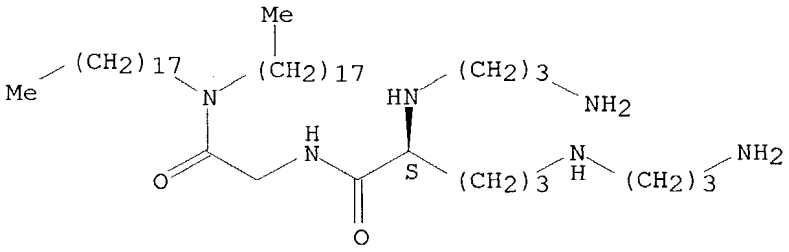
IT **124050-77-7**, Transfectam
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(lipofection reagent; characterization of human DNase-1-like-3

activity, its association with systemic lupus erythematosus, and regulation and use thereof in gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 2 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:435087 CAPLUS

DN 139:26604

TI Compositions for stimulating cytokine secretion and inducing an immune response

IN Semple, Sean C.; Harasym, Troy O.; Klimuk, Sandra K.; Kojic, Ljiljiana D.; Bramson, Jonathan L.; Mui, Barbara; Hope, Michael J.

PA Can.

SO U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of U.S. Ser. No. 649,527. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 8

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003104044	A1	20030605	US 2002-86477	20020301
			US 1997-856374	B219970514
			US 1998-78954	A219980514
			US 1999-151211PP	19990827
			US 2000-176406PP	20000113
			US 2000-649527	A220000828
			US 2001-273293PP	20010301
US 6287591	B1	20010911	US 1998-78954	19980514
			US 1997-856374	B219970514
US 2004009943	A1	20040115	US 2003-437263	20030512
			US 1999-151211PP	19990827
			US 2000-176406PP	20000113
			US 2000-649527 A	20000828
			US 2002-379343PP	20020510
			US 2003-454298PP	20030312
			US 2003-460646PP	20030404

PATENT FAMILY INFORMATION:

FAN 1998:766505

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9851278	A2	19981119	WO 1998-CA485	19980514
WO 9851278	A3	20000615		

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KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 1997-856374 A 19970514

AU 9874221 A1 19981208 AU 1998-74221 19980514
AU 733310 B2 20010510

US 1997-856374 A 19970514
WO 1998-CA485 W 19980514

EP 1027033 A2 20000816 EP 1998-921310 19980514
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

US 1997-856374 A 19970514
WO 1998-CA485 W 19980514

JP 2002501511 T2 20020115 JP 1998-548646 19980514
US 1997-856374 A 19970514
WO 1998-CA485 W 19980514

FAN 2001:167832

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001015726	A2	20010308	WO 2000-CA1013	20000828
WO 2001015726	A3	20010726		

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US 1999-151211PP 19990827
US 2000-176406PP 20000113

AU 2000068139 A5 20010326 AU 2000-68139 20000828
US 1999-151211PP 19990826
US 2000-176406PP 20000113
WO 2000-CA1013 W 20000828

BR 2000013834 A 20020423 BR 2000-13834 20000828
US 1999-151211PP 19990827
US 2000-176406PP 20000113
WO 2000-CA1013 W 20000828

EP 1212085 A2 20020612 EP 2000-956004 20000828
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

US 1999-151211PP 19990827
US 2000-176406PP 20000113
WO 2000-CA1013 W 20000828

JP 2003509341 T2 20030311 JP 2001-520138 20000828
US 1999-151211PP 19990827
US 2000-176406PP 20000113
WO 2000-CA1013 W 20000828

US 2004009943 A1 20040115 US 2003-437263 20030512
US 1999-151211PP 19990827
US 2000-176406PP 20000113
US 2000-649527 A 20000828
US 2002-379343PP 20020510
US 2003-454298PP 20030312
US 2003-460646PP 20030404

FAN 2001:666681

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6287591	B1	20010911	US 1998-78954	19980514
				US 1997-856374 B2	19970514
	US 2003129221	A1	20030710	US 2001-895480	20010629
				US 1997-856374 B2	19970514
				US 1998-78954 A1	19980514
	US 2003104044	A1	20030605	US 2002-86477	20020301
				US 1997-856374 B2	19970514
				US 1998-78954 A2	19980514
				US 1999-151211PP	19990827
				US 2000-176406PP	20000113
				US 2000-649527 A2	20000828
				US 2001-273293PP	20010301

FAN 2003:376681

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003039595	A2	20030515	WO 2002-CA1717	20021107
	WO 2003039595	A3	20030918		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

				US 2001-337522PP	20011107
				US 2002-379343PP	20020510
	US 2004009943	A1	20040115	US 2003-437263	20030512
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				US 2000-176406PP	20000113
				US 2000-649527 A	20000828
				US 2002-379343PP	20020510
				US 2003-454298PP	20030312
				US 2003-460646PP	20030404
	US 2004013649	A1	20040122	US 2003-437258	20030512
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				US 2003-454298PP	20030312
				US 2003-460646PP	20030404

FAN 2003:912932

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003094828	A2	20031120	WO 2003-CA679	20030512
	WO 2003094828	A3	20040205		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,

GW, ML, MR, NE, SN, TD, TG

			US 2002-379343PP	20020510
			US 2002-290545 A	20021107
			US 2003-460646PP	20030404
US 2003125292	A1	20030703	US 2002-290545	20021107
			US 2001-337522PP	20011107
			US 2002-379343PP	20020510
US 2004009943	A1	20040115	US 2003-437263	20030512
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			US 2000-649527 A	20000828
			US 2002-379343PP	20020510
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			US 2003-460646PP	20030404
US 2004009944	A1	20040115	US 2003-437275	20030512
			US 2002-379343PP	20020510
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US 2004013649	A1	20040122	US 2003-437258	20030512
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			US 2003-454298PP	20030312
			US 2003-460646PP	20030404

FAN 2003:912933

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003094829	A2	20031120	WO 2003-CA680	20030512
WO 2003094829	A3	20040205		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

			US 2002-379343PP	20020510
			US 2002-290545 A	20021107
			US 2003-454298PP	20030312
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			US 2001-337522PP	20011107
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US 2004009943	A1	20040115	US 2003-437263	20030512
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			US 2000-176406PP	20000113
			US 2000-649527 A	20000828
			US 2002-379343PP	20020510
			US 2003-454298PP	20030312
			US 2003-460646PP	20030404
US 2004013649	A1	20040122	US 2003-437258	20030512
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			US 2003-454298PP	20030312
			US 2003-460646PP	20030404

FAN 2003:913036

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003094963	A2	20031120	WO 2003-CA678	20030512
WO 2003094963	A3	20040212		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

			US 2002-379343PP 20020510
			US 2002-290545 A 20021107
			US 2003-460646PP 20030404
US 2003125292	A1	20030703	US 2002-290545 20021107
			US 2001-337522PP 20011107
			US 2002-379343PP 20020510
US 2004009943	A1	20040115	US 2003-437263 20030512
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			US 2000-176406PP 20000113
			US 2000-649527 A 20000828
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US 2004013649	A1	20040122	US 2003-437258 20030512
			US 2002-379343PP 20020510
			US 2003-454298PP 20030312
			US 2003-460646PP 20030404

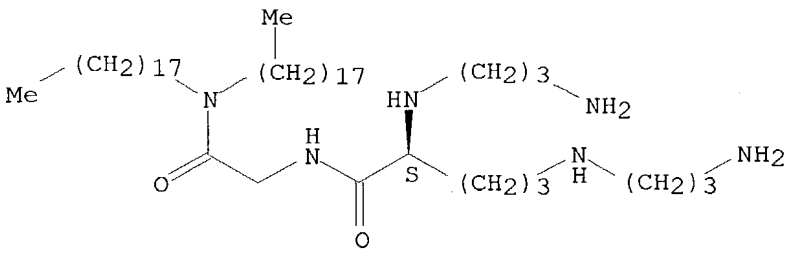
AB Lipid-nucleic acid particles can provide therapeutic benefits, even when the nucleic acid is not complementary to coding sequences in target cells. It has been found that lipid-nucleic acid particles, including those containing non-sequence specific oligodeoxynucleotides, can be used to stimulate cytokine secretion, thus enhancing the overall immune response of a treated mammal. Further, immune response to specific target antigens can be induced by administration of a antigenic mol. in association with lipid particles containing non-sequence specific oligodeoxynucleotides. The nucleic acid which is included in the lipid-nucleic acid particle can be a phosphodiester (i.e., an oligodeoxynucleotide consisting of nucleotide residues joined by phosphodiester linkages) or a modified nucleic acid which includes phosphorothioate or other modified linkages, and may suitably be one which is non-complementary to the human genome, such that it acts to provide immunostimulation in a manner which is independent of conventional base-pairing interactions between the nucleic acid and nucleic acids of the treated mammal. In particular, the nucleic acid may suitably contain an immune-stimulating motif such as a CpG motif, or an immune stimulating palindromic sequence. The cationic lipid included in the nucleic acid particles may be suitably selected from among DODAP, DODMA, DMDMA, DOTAP, DC-Chol, DDAB, DODAC, DMRIE, DOSPA and DOGS. In addition, the lipid particle may suitably contain an modified aggregation-limiting lipid such as a PEG-lipid, a PAO-lipid or a ganglioside.

IT **124050-77-7**, DOGS
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of liposomes encapsulating immunostimulatory nucleic acid)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 3 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:376897 CAPLUS
DN 138:379265
TI Antisense oligonucleotides modulating bcl-2 expression
IN Capaccioli, Sergio; Papucci, Laura; Schiavone, Nicola; Donnini, Martino; Lapucci, Andrea; Tempestini, Alessio; Brancato, Rosario
PA Visufarma S.R.L., Italy
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003040182	A1	20030515	WO 2002-EP12502	20021108

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

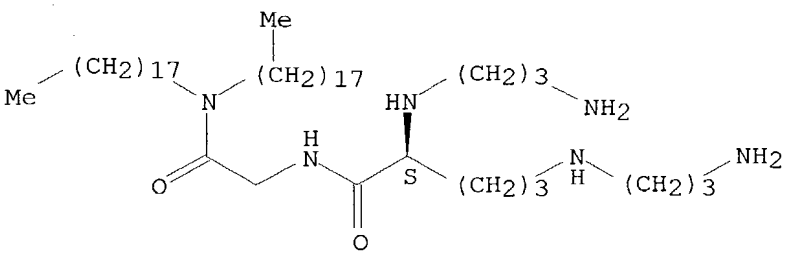
IT 2001-MI2367 A 20011109

AB Antisense oligonucleotides targeting the ARE region of bcl-2 mRNA, pharmaceutical compns. containing the same and uses thereof as therapeutic agents. The oligonucleotides are claimed for the treatment ofophthalmol. pathologies, toxicity by cytotoxic agents, hypoxia damage, Alzheimer disease, Parkinson disease, Huntington chorea, lateral amyotrophic sclerosis.

IT **124050-77-7,** DOGS
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antisense oligonucleotides modulating bcl-2 expression)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:376681 CAPLUS
DN 138:384141
TI Liposome-encapsulated immunostimulatory sequences as mucosal adjuvants
IN Semple, Sean; Klimuk, Sandra; Yuan, Zuan-Ning
PA Inex Pharmaceuticals Corporation, Can.
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003039595	A2	20030515	WO 2002-CA1717	20021107
	WO 2003039595	A3	20030918		
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				US 2003-460646PP	20030404

PATENT FAMILY INFORMATION:
FAN 1998:766505

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851278	A2	19981119	WO 1998-CA485	19980514

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     WO 9851278         A3   20000615
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     AU 9874221         A1   19981208       AU 1998-74221    19980514
     AU 733310          B2   20010510
                                          US 1997-856374 A 19970514
                                          WO 1998-CA485  W 19980514
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FAN  2001:167832
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				US 2002-379343PP 20020510
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FAN 2001:666681

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				US 1997-856374 B2	19970514
				US 1998-78954 A1	19980514
	US 2003104044	A1	20030605	US 2002-86477	20020301
				US 1997-856374 B2	19970514
				US 1998-78954 A2	19980514
				US 1999-151211PP	19990827
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FAN 2003:435087

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				US 2000-649527 A2	20000828
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				US 1997-856374 B2	19970514
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				US 2003-460646PP	20030404

FAN 2003:912932

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003094828	A2	20031120	WO 2003-CA679	20030512
	WO 2003094828	A3	20040205		

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				US 2002-379343PP 20020510
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				US 2003-460646PP 20030404
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				US 2001-337522PP 20011107
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				US 2002-379343PP	20020510
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FAN 2003:912933

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PI	WO 2003094829	A2	20031120	WO 2003-CA680	20030512
	WO 2003094829	A3	20040205		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

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				US 2003-454298PP	20030312
				US 2003-460646PP	20030404

FAN 2003:913036

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003094963	A2	20031120	WO 2003-CA678	20030512
	WO 2003094963	A3	20040212		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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US 2004013649	A1	20040122	US 2003-437258 20030512
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			US 2003-460646PP 20030404

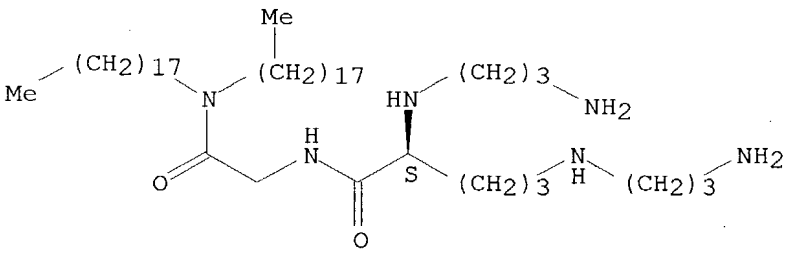
AB The authors disclose an enhancement of mucosal immune responses to antigens using to lipid-nucleic acids (LNA) formulations. In one example, the local (lung) and distant (vaginal) mucosal IgA response to nasal immunization with target antigen was enhanced by liposome-encapsulated immunostimulatory sequences.

IT **124050-77-7**, DOGS
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of liposomes encapsulating immunostimulatory sequences)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 5 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:22706 CAPLUS

DN 138:88638

TI Cancer vaccine containing cancer antigen based on tumor suppressor gene WT1 product and cationic liposomes

IN Mayumi, Tadanori; Sugiyama, Haruo; Ohsugi, Yoshiyuki

PA Chugai Seiyaku Kabushiki Kaisha, Japan; Chugai Pharmaceutical Co., Ltd.

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003002142	A1	20030109	WO 2002-JP6597	20020628
WO 2003002142	C1	20031211		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

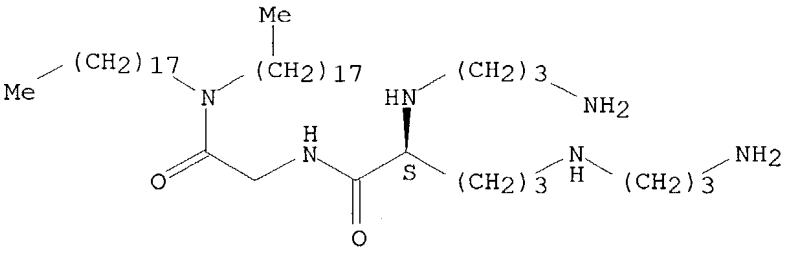
JP 2001-199449 A 20010629

AB Provided is a cancer vaccine containing a cancer antigen comprising as the active ingredient a tumor suppressor gene WT1 product or its peptide fragment and cationic liposomes.

IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cancer vaccine containing cancer antigen based on tumor suppressor gene WT1 product and cationic liposomes)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:945750 CAPLUS
DN 139:202221
TI A Lipid-based Delivery System for Antisense Oligonucleotides Derived from a Hydrophobic Complex
AU Wong, F. M. P.; MacAdam, S. A.; Kim, A.; Oja, C.; Ramsay, E. C.; Bally, M. B.
CS Cancer Agency, Department of Advanced Therapeutics, Vancouver, BC, V5Z 1L3, Can.
SO Journal of Drug Targeting (2002), 10(8), 615-623
CODEN: JDTAEH; ISSN: 1061-186X
PB Taylor & Francis Ltd.
DT Journal
LA English

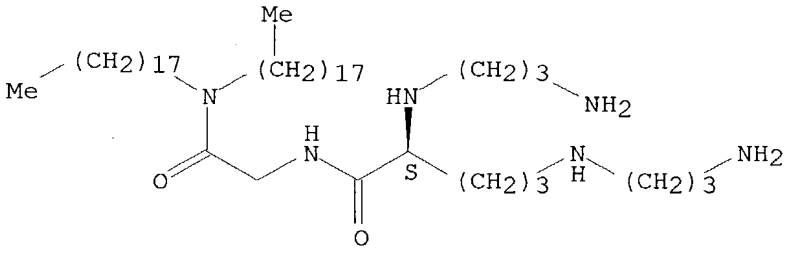
AB Antisense oligodeoxynucleotides (ASOs) prevent expression of proteins by binding to specific regions of mRNA. This report investigates a potential lipid-based delivery system for ASO. A hydrophobic complex was recovered following addition of cationic lipids to ASOs in a Bligh and Dyer monophase [chloroform/methanol/water (1:2.1:1, volume/volume/v)]. The addition of monovalent cationic lipids (dioleyldimethylammonium chloride, dimethyldioctadecylammonium bromide, dioleoyltrimethylammonium propane), resulted in >95 recovery of the ASOs from the organic phase when ASO phosphate charge was neutralized. Cholesteryldimethylaminoethylcarbamate mediated efficient extraction at a charge ratio (+/-) >5.2. ASOs could not be extracted into the organic phase by the polyvalent lipids, dioctadecylamidoglycyl spermine and 2,3-dioleyloxy-N-[2(sperminecarboxamido)ethyl]-N,N-dimethyl-1-propaminium trifluoroacetate, even at a charge ratio (+/-) >5. Dioleoylphosphatidylethanolamine, but not dioleoylphosphatidylcholine, prevented formation and destabilized the hydrophobic complexes. The characterization of the hydrophobic complex led to the development of lipid-ASO particles containing dioleyldimethylammonium chloride, dioleoylphosphatidylethanolamine and poly(ethylene glycol)-conjugated phosphatidylethanolamine (LAPs). When FITC-labeled ASOs in LAPs were added to B-cell lymphoma cells (DoHH2) in vitro, cell-associated ASO decreased as poly(ethylene glycol)-conjugated phosphatidylethanolamine incorporation increased. Western Blot anal. demonstrated that no significant downregulation of Bcl-2 protein was observed when using LAPs. The results suggest that the use of stabilized PEG-conjugated lipids may be detrimental for cationic lipid-based ASO delivery.

IT **124050-77-7**, Transfectam
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(lipid-based delivery system for antisense oligonucleotides)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:938481 CAPLUS

DN 139:235215

TI In Vitro and In Vivo Transfection of Melanoma Cells B16-F10 Mediated by Cholesterol-based Cationic Liposomes

AU Reynier, P.; Briane, D.; Cao, A.; Lievre, N.; Naejus, R.; Bissieres, P.; Salzmann, J. L.; Taillandier, E.

CS UFR de Medecine, FRE 2313, CNRS, Laboratoire de Chimie Structurale et

Spectroscopie Biomoleculaire (CSSB), Universite Paris XIII, Bobigny, F93017, Fr.

SO Journal of Drug Targeting (2002), 10(7), 557-566
CODEN: JDTAEH; ISSN: 1061-186X

PB Taylor & Francis Ltd.

DT Journal

LA English

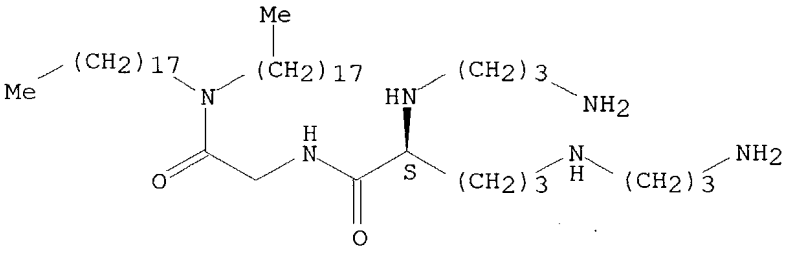
AB In vitro and in vivo transgene expression in B16-F10 melanoma cells has been investigated using an original cationic liposome prepared with tri-Et aminopropane carbamoyl cholesterol iodide (TEAPC-Chol) as carrier. TEAPC-Chol/DOPE (dioleoyl phosphatidyl ethanolamine) liposomes are unilamellar, very stable and not toxic in the used concentration range. The yield in complexation with plasmid DNA can reach 100 even in the presence of fetal calf serum. The transfection level has been evaluated by luminometric measurements of luciferase expression. With TEAPC-Chol/DOPE (1:1) liposomes, a relatively high transfection level in B16-F10 cells has been observed comparing to com. reagents. For in vivo assays, the transfection level in tumors induced in Nude mice has been optimized by studying the effects of charge ratio, of the helper lipid and of the injection volume Results showed that TEAPC-Chol/DOPE (1:1) liposomes have improved 10-fold transfection level vs. direct gene transfer of free DNA.

IT **124050-77-7**, Transfectam
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in Vitro and in Vivo transfection of melanoma cells B16-F10 mediated by cholesterol-based cationic liposomes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:762314 CAPLUS

DN 138:406770

TI Inhibition of nonviral cationic liposome-mediated gene transfer into primary human respiratory cells by interferon-γ

AU Sersale, Giovanna; Carpani, Daniela; Casotti, Valeria; Livraghi, Alessandra; Carrabino, Salvatore; Di Cicco, Maurizio; Assael, Baroukh M.; Giunta, Annamaria; Conese, Massimo

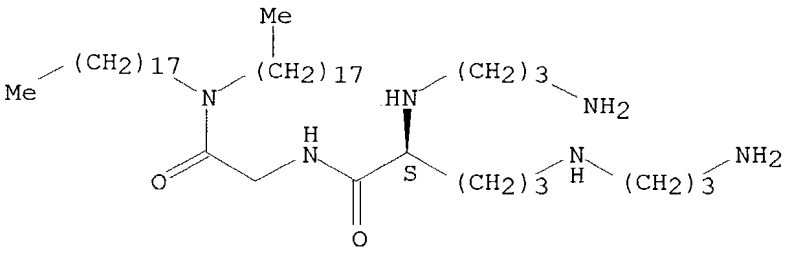
CS Institute for Experimental Treatment of Cystic Fibrosis, San Raffaele Scientific Institute, Milan, 20132, Italy

SO Journal of Molecular Medicine (Berlin, Germany) (2002), 80(8), 499-506
CODEN: JMLME8; ISSN: 0946-2716

PB Springer-Verlag

DT Journal
LA English
AB The effect of interferon (IFN) γ on cationic liposome-mediated gene transfer into primary respiratory epithelial cells was investigated. Treatment of primary respiratory epithelial cells with IFN-γ resulted in a dose-dependent increase in the intermediate filament cytokeratin 13 and a decrease in cellular proliferation, indicating that respiratory cells underwent squamous differentiation. IFN-γ pretreatment resulted in a dramatic inhibition of transfection efficiency mediated by a cationic liposome (DOTAP). Incubation of squamous nasal cells with DOTAP/DNA complexes for various periods at 4° and evaluation of luciferase levels suggested that IFN-γ pretreatment inhibits complex binding to the cells. In primary nasal and bronchial cells cytofluorometric anal. demonstrated that IFN-γ reduces binding of FITC-labeled complexes. The data indicate that differentiation of respiratory epithelial cells to a squamous phenotype, which may occur in chronic respiratory diseases such as cystic fibrosis, induces a refractory condition to gene transfer by nonviral cationic liposomes.
IT **124050-77-7,** DOGS
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of nonviral cationic liposome-mediated gene transfer into primary human respiratory cells by interferon-γ)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:505909 CAPLUS
DN 138:243023
TI Deoxyribonuclease I-like III is an inducible macrophage barrier to liposomal transfection
AU Wilber, Andrew; Lu, Michael; Schneider, Michael C.
CS Division of Genetics and Metabolism, Department of Pediatrics, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 02115, USA
SO Molecular Therapy (2002), 6(1), 35-42
CODEN: MTOHCK; ISSN: 1525-0016
PB Elsevier Science
DT Journal
LA English
AB Extra- and intracellular nucleases are predicted to decrease the in vivo efficiency of liposomal transfection. DNASE1 (D1) has been proposed as the main nuclease barrier, yet liposome-complexed DNA and in vitro

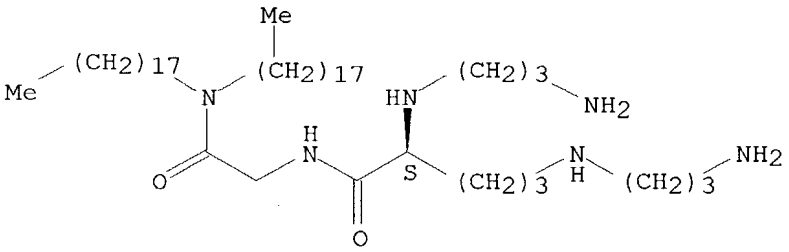
lipofection are generally immune to D1. In contrast, medium conditioned by the macrophage enzyme DNASE1-like 3 (DNASE1L3 or D3) erects a potent in vitro barrier to liposomal transfection. Although homologous to D1 over its amino-terminal sequence, D3 has a distinct, highly basic carboxy terminus, which resembles polylysine stretches often found in polycationic liposomal reagents. If this domain is truncated from D3, the resulting enzyme has more nuclease activity against naked DNA ("free DNA"-nuclease activity), yet does not block transfection. C-terminal fusion of this domain to D1 forms a chimeric protein able to block transfection. D3 can be immunodetected in both serum and macrophage lysates. Macrophage-conditioned medium contains both "free DNA"-nuclease activity and the ability to block transfection, and by zymogram only a 28-kDa DNASE, consistent by size with D3, is present. Thus, medium containing D3 confers to cells an in vivo shield to the nuclear acquisition of exogenous DNA. Modulation and further elucidation of this activity are likely to have importance for both gene therapy and autoimmune disorders.

IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNase I-like III is inducible macrophage barrier to liposomal transfection)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:392998 CAPLUS

DN 138:112194

TI Characterization of a synthetic anionic vector for oligonucleotide delivery using in vivo whole body dynamic imaging

AU Tavitian, Bertrand; Marzabal, Stephane; Boutet, Valerie; Kuhnast, Bertrand; Terrazzino, Salvatore; Moynier, Marinette; Dolle, Frederic; Deverre, Jean Robert; Thierry, Alain R.

CS SHFJ, INSERM M 0103, CEA, Orsay, F-91401, Fr.

SO Pharmaceutical Research (2002), 19(4), 367-376
CODEN: PHREEB; ISSN: 0724-8741

PB Kluwer Academic/Plenum Publishers

DT Journal

LA English

AB Purpose. To compare the pharmacokinetics and bioavailability of an oligonucleotide delivered in a free form or using cationic or anionic synthetic carrier systems. Methods. Whole body dynamic quant. imaging and metabolism of a HIV antisense oligonucleotide i.v. administered either free or incorporated into synthetic carriers were compared in baboons, using non

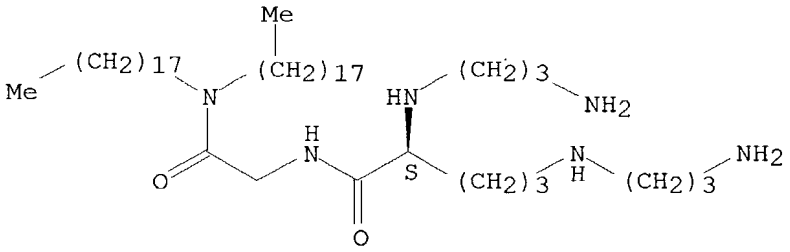
invasive positron emission tomog. and an enzyme-based competitive hybridization assay, resp. Results. In its free form, the oligonucleotide showed high liver and kidney concentration, rapid plasmatic degradation and elimination from the body. Use of a cationic vector slightly protected the oligonucleotide against degradation and enhanced uptake by the reticulo-endothelial system. In contrast, the anionic vector dramatically enhanced the uptake in several organs, including the lungs, spleen and brain, with a prolonged accumulation of radioactivity in the brain. Using this vector, intact oligonucleotide was detected in plasma for up to two hours after injection, and the T1/2β and distribution volume increased by 4- and 7-fold, resp. No evidence of toxicity was found after a single dose administration. Conclusions. The anionic vector improves significantly the bioavailability and the pharmacokinetics of the oligonucleotide, and is a promising delivery system for in vivo administration of therapeutic nucleic acids.

IT **124050-77-7,** DOGS
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(characterization of synthetic anionic vector for oligonucleotide delivery using in vivo whole body dynamic imaging)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:309818 CAPLUS

DN 136:336176

TI Compositions containing DNA, Tat peptide-nucleic acid binder conjugates, and cationic lipids for cell transfections

IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.; Schifferli, Kevin P.; Gebeyehu, Gulilat; Ciccarone, Valentina C.; Evans, Krista L.

PA Life Technologies, Inc., USA

SO U.S., 108 pp., Cont.-in-part of U.S. 6,051,429.
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6376248	B1	20020423	US 1998-39780	19980316
				US 1997-818200 A2	19970314
	US 6051429	A	20000418	US 1997-818200	19970314

				US 1995-477354	B219950607
				US 1996-658130	A219960604
	US 2003069173	A1	20030410	US 2001-911569	20010723
				US 1998-39780	A119980316
	US 2003144230	A1	20030731	US 2002-200879	20020723
				US 1995-477354	B219950607
				US 1996-658130	A219960604
				US 1997-818200	A219970314
				US 1998-39780	A119980316
				US 2001-911569	A120010723

PATENT FAMILY INFORMATION:

FAN 1997:130043

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9640961	A1	19961219	WO 1996-US8723	19960604
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1995-477354 A	19950607
	AU 9659792	A1	19961230	AU 1996-59792	19960604
				US 1995-477354 A	19950607
				WO 1996-US8723 W	19960604
	EP 874910	A1	19981104	EP 1996-917118	19960604
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
				US 1995-477354 A	19950607
				WO 1996-US8723 W	19960604
	JP 11506935	T2	19990622	JP 1996-501227	19960604
				US 1995-477354 A	19950607
				WO 1996-US8723 W	19960604

FAN 1998:219310

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5736392	A	19980407	US 1996-658130	19960604
				US 1995-477354	B219950607
	US 6051429	A	20000418	US 1997-818200	19970314
				US 1995-477354	B219950607
				US 1996-658130	A219960604
	US 2003144230	A1	20030731	US 2002-200879	20020723
				US 1995-477354	B219950607
				US 1996-658130	A219960604
				US 1997-818200	A219970314
				US 1998-39780	A119980316
				US 2001-911569	A120010723

FAN 1998:621324

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9840502	A1	19980917	WO 1998-US5232	19980316
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1997-818200 A	19970314

	US 6051429	A	20000418	US 1997-818200 19970314
				US 1995-477354 B219950607
				US 1996-658130 A219960604
	AU 9865622	A1	19980929	AU 1998-65622 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	EP 1007699	A1	20000614	EP 1998-911737 19980316
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	JP 2001517939	T2	20011009	JP 1998-539899 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316

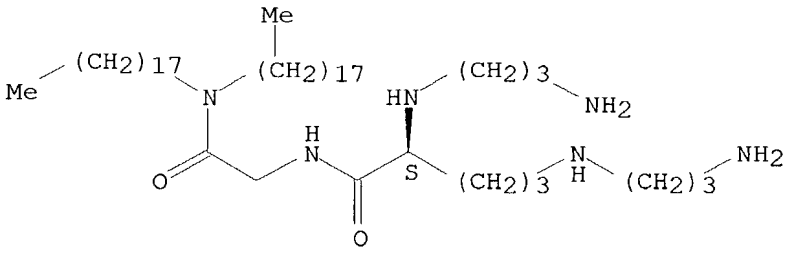
FAN 2000:254039

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	US 6051429	A	20000418	US 1997-818200 19970314
				US 1995-477354 B219950607
				US 1996-658130 A219960604
	US 5736392	A	19980407	US 1996-658130 19960604
				US 1995-477354 B219950607
	WO 9840502	A1	19980917	WO 1998-US5232 19980316
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
				US 1997-818200 A 19970314
	AU 9865622	A1	19980929	AU 1998-65622 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	EP 1007699	A1	20000614	EP 1998-911737 19980316
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	JP 2001517939	T2	20011009	JP 1998-539899 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	US 6376248	B1	20020423	US 1998-39780 19980316
				US 1997-818200 A219970314
	US 2003144230	A1	20030731	US 2002-200879 20020723
				US 1995-477354 B219950607
				US 1996-658130 A219960604
				US 1997-818200 A219970314
				US 1998-39780 A119980316
				US 2001-911569 A120010723

AB The present invention provides compns. useful for transfecting cells comprising nucleic acid complexes with Tat peptide, wherein the peptide is covalently coupled to a nucleic acid-binding group, and cationic lipids as transfection agents. Inclusion of peptides in transfection compns. or covalent attachment of peptides to transfection agents results in enhanced transfection efficiency. Methods for the preparation of transfection compns. and methods of using these transfection compns. as intracellular delivery agents are also disclosed.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(compns. containing DNA, Tat peptide-nucleic acid binder conjugates, and cationic lipids for cell transfections)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 157 THERE ARE 157 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:184831 CAPLUS
DN 136:227908
TI Compositions and methods for enhanced sensitivity and specificity of nucleic acid synthesis
IN Astatke, Mekbib; Gebeyehu, Gulilat
PA Invitrogen Corporation, USA
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002019822	A1	20020314	WO 2001-US28042	20010910
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
				US 2000-231330PP	20000908
	AU 2001090660	A5	20020322	AU 2001-90660	20010910
				US 2000-231330PP	20000908
				WO 2001-US28042W	20010910
	US 2002037834	A1	20020328	US 2001-948714	20010910
				US 2000-231330PP	20000908
	EP 1343371	A1	20030917	EP 2001-970679	20010910
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
				US 2000-231330PP	20000908

				WO 2001-US28042W 20010910
JP 2004508023	T2	20040318	JP 2002-524314	20010910
			US 2000-231330PP	20000908
			WO 2001-US28042W	20010910

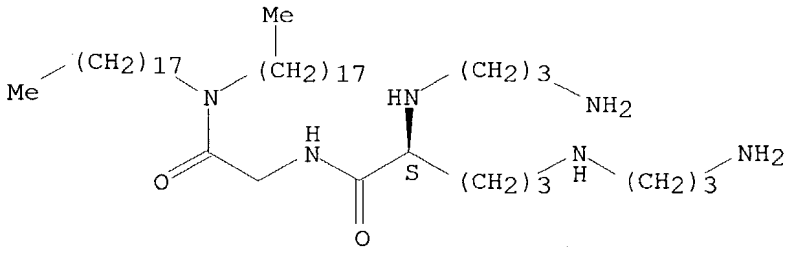
AB The present invention relates to cationic and polycationic compns. and methods for enhancing synthesis of nucleic acid mols. In a preferred aspect, the invention relates to inhibition or control of nucleic acid synthesis, sequencing or amplification. Specifically, the present invention discloses cationic and polycationic mols., compds., and compns. having affinity for double-stranded and/or single-stranded nucleic acid mols. and/or single-stranded/double-stranded nucleic acid complexes (e.g., primer/template complexes, double-stranded templates, single-stranded templates or single-stranded primers) for use in such enhanced synthesis. The cationic and polycationic mols., compds., and compns. of the invention are capable of inhibiting nonspecific nucleic acid synthesis at ambient temperature Thus, in a preferred aspect, the invention relates to "hot start" synthesis of nucleic acid mols. Accordingly, the invention prevent non-specific nucleic acid synthesis at low temps., for example during reaction set up. The invention also relates to kits for synthesizing, amplifying, reverse transcribing or sequencing nucleic acid mols. comprising one or more of the cationic and polycationic mols., compds., and compns. of the invention. The invention also relates to compns. prepared for carrying out the methods of the invention and to compns. made after or during such methods. The invention also generally relates to compns. useful for inhibiting or preventing degradation of various nucleic acid mols.

IT **124050-77-7**, Transfectam
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(compns. and methods for enhanced sensitivity and specificity of nucleic acid synthesis)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:903794 CAPLUS

DN 136:58784

TI Encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic peptide conjugates into targeted liposome complexes

IN Boulikas, Teni

PA USA

SO PCT Int. Appl., 107 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001093836	A2	20011213	WO 2001-US18657	20010608
	WO 2001093836	A3	20021003		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				US 2000-210925PP	20000609
	EP 1292284	A2	20030319	EP 2001-942131	20010608
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
				US 2000-210925PP	20000609
				WO 2001-US18657W	20010608
	US 2003072794	A1	20030417	US 2001-876904	20010608
				US 2000-210925PP	20000609
	JP 2003535832	T2	20031202	JP 2002-501409	20010608
				US 2000-210925PP	20000609
				WO 2001-US18657W	20010608

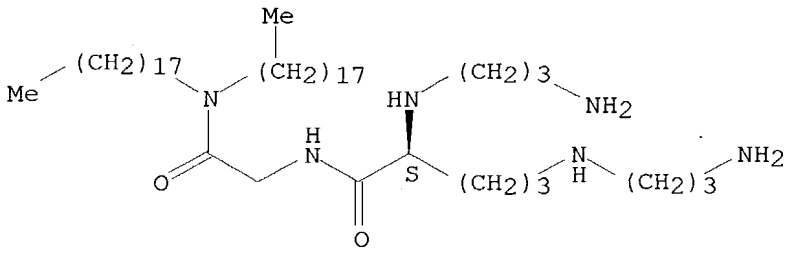
AB A method is disclosed for encapsulating plasmids, oligonucleotides or neg.-charged drugs into liposomes having a different lipid composition between their inner and outer membrane bilayers and able to reach primary tumors and their metastases after i.v. injection to animals and humans. The formulation method includes complex formation between DNA with cationic lipid mols. and fusogenic/NLS peptide conjugates composed of a hydrophobic chain of about 10-20 amino acids and also containing four or more histidine residues or NLS at their one end. The encapsulated mols. display therapeutic efficacy in eradicating a variety of solid human tumors including but not limited to breast carcinoma and prostate carcinoma. Combination of the plasmids, oligonucleotides or neg.-charged drugs with other anti-neoplastic drugs (the pos.-charged cis-platin, doxorubicin) encapsulated into liposomes are of therapeutic value. Also of therapeutic value in cancer eradication are combinations of the encapsulated plasmids, oligonucleotides or neg.-charged drugs with HSV-tk plus encapsulated ganciclovir.

IT **124050-77-7**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(encapsulation of plasmid DNA (Lipogenes) and therapeutic agents with nuclear localization signal/fusogenic peptide conjugates into targeted liposome complexes)

RN 124050-77-7 CAPLUS

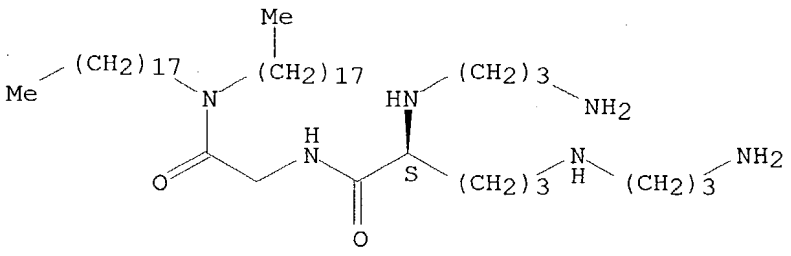
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



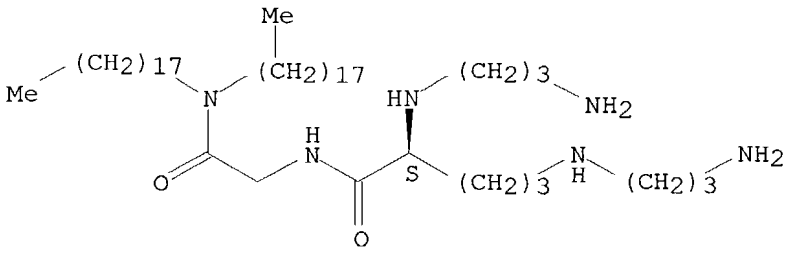
L8 ANSWER 14 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:893993 CAPLUS
DN 137:139126
TI Treatment of established hepatic tumor in mice by intratumoral injection of interleukin-2 plasmid DNA/lipid complexes
AU Jin, Xiaoling; Jing, Qingyuan; Wang, Bingsheng
CS Department of General Surgery, Nanjing First Affiliated Hospital of Nanjing Medical University, Nanjing, 210006, Peop. Rep. China
SO Zhongguo Zhongliu Linchang (2001), 28(10), 779-782
CODEN: ZZLIEP; ISSN: 1000-8179
PB Zhongguo Zhongliu Linchang Bianji Weiyuanhui
DT Journal
LA Chinese
AB The effect of interleukin-2 plasmid DNA/lipid complexes was studied for treating hepatic tumor in mice by intratumoral injection. DNA-lipid complexes were formed by mixing VR1110 and Transfectam at appropriate proportion. It was used in the treatment of established hepatic tumor in mice by intratumoral injection and it was compared with Bacillus Calmette-Guerin (BCG). The intratumoral injection of VR1110/Transfectam complexes resulted in the expression of mRNA, significant reduction of tumor size and prolonged survival of mice($P < 0.05$). The same result was found after intratumoral injection of VR1110/Transfectam complexes in combination with BCG, but there was no significance between these two groups. The intratumoral injection of VR1110/Transfectam complexes can lead to a significant antitumor response in hepatoma bearing mice and its effect is better than the BCG's. This method is simple and suitable for clin. tumor therapy.
IT **124050-77-7**, Transfectam
RL: PAC (Pharmacological activity); BIOL (Biological study)
(treatment of established hepatic tumor in mice by intratumoral injection of interleukin-2 plasmid DNA/lipid complexes)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 15 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:781544 CAPLUS
DN 136:74493
TI In Vitro Cationic Lipid-Mediated Gene Delivery with Fluorinated Glycerophosphoethanolamine Helper Lipids
AU Gaucheron, Jerome; Boulanger, Caroline; Santaella, Catherine; Sbirrazzuoli, Nicolas; Boussif, Otmane; Vierling, Pierre
CS Laboratoire de Chimie Bioorganique, UMR 6001 CNRS, Universite de Nice-Sophia Antipolis, Nice, 06108, Fr.
SO Bioconjugate Chemistry (2001), 12(6), 949-963
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB There is a need for the development of nonviral gene transfer systems with improved and original properties. "Fluorinated" lipoplexes are such candidates, as supported by the remarkably higher in vitro and in vivo transfection potency found for such fluorinated lipoplexes as compared with conventional ones or even with PEI-based polyplexes (Boussif, O., et al, 2001). Here, we describe the synthesis of fluorinated glycerophosphoethanolamines (F-PEs), close analogs of dioleoylphosphatidylethanolamine (DOPE), and report on their lipid helper properties vs that of DOPE, as in vitro gene transfer components of fluorinated lipoplexes based on pcTG90, DOGS (Transfectam), or DOTAP. To evaluate the contribution of the F-PEs to in vitro lipoplex-mediated gene transfer, we examined the effect of including the F-PEs in lipoplexes formulated with these cationic lipids (CL) for various CLpdope:F-PE molar ratios [1:(1 - x):x with x = 0, 0.5 and 1; 1:(2 - y):y with y = 0, 1, 1.5, and 2], and various N/P ratios (from 10 to 0.8, N = number of CL amines, P = number of DNA phosphates). Irresp. of the F-PE chemical structure, of the colipid F-PE:DOPE composition, and of the N/P ratio, comparable transfection levels to those of their resp. control DOPE lipoplexes were most frequently obtained when using one of the F-PEs as colipid of DOGS, pcTG90, or DOTAP in place of part of or of all DOPE. However, a large proportion of DOGS-based lipoplexes were found to display a higher transfection efficiency when formulated with the F-PEs rather than with DOPE alone while the opposite tendency was evidenced for the DOTAP-based lipoplexes. The present work indicates that "fluorinated" lipoplexes formulated with fluorinated helper lipids and conventional cationic lipids are very attractive candidates for gene delivery. It confirms further that lipophobicity and restricted miscibility of the lipoplex lipids with the endogenous lipids does not preclude efficient gene transfer and expression. Their transfection potency is rather attributable to their unique lipophobic and hydrophobic character (resulting from the formulation of DNA with fluorinated lipids), thus preventing to some extent DNA from interactions with lipophilic and hydrophilic biocompounds, and from degradation
IT **124050-77-7**, Dogs
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vitro cationic lipid-mediated gene delivery with fluorinated glycerophosphoethanolamine helper lipids)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 16 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:730528 CAPLUS
DN 135:278003
TI Compositions and methods for gene therapy
IN Vogel, Jean-marie; Boschetti, Egisto
PA Biosphere Medical Inc., USA
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001072280	A2	20011004	WO 2001-US9618	20010323
	WO 2001072280	A3	20020131		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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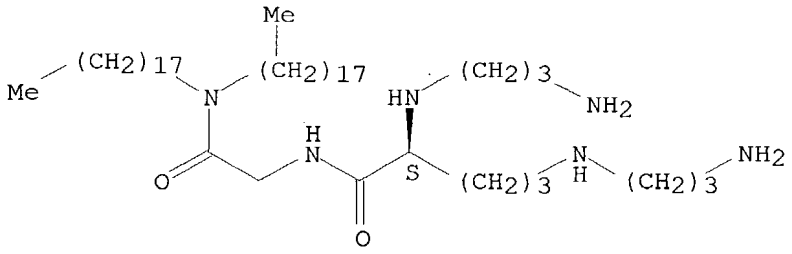
				US 2000-191902PP	20000324
	US 2003212022	A1	20031113	US 2002-220983	20021212
				WO 2001-US9618 W	20010323

AB The present invention relates to injectable compns. comprising biocompatible, swellable, substantially hydrophilic, non-toxic and substantially spherical polymeric material carriers which are capable of efficiently delivering bioactive therapeutic factor(s) phys. linked to a transfection agent for use in embolization gene therapy. The present invention further relates to methods of embolization gene therapy, particularly for the treatment of angiogenic and non-angiogenic-dependent diseases, using the injectable compns.

IT **124050-77-7**, Transfectam
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(compns. and methods for embolization gene therapy)

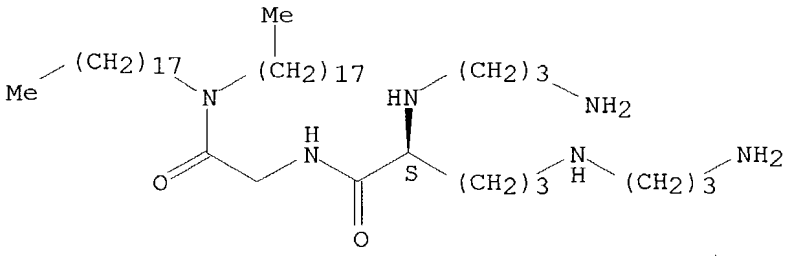
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 17 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:663278 CAPLUS
DN 136:390857
TI High-throughput screening method for identification of new lipofection reagents
AU Regelin, Anne E.; Fernholz, Erhard; Krug, Harald F.; Massing, Ulrich
CS Department of Clinical Research/Phospholipids, Tumor Biology Center, Freiburg, Germany
SO Journal of Biomolecular Screening (2001), 6(4), 245-254
CODEN: JBISF3; ISSN: 1087-0571
PB Mary Ann Liebert, Inc.
DT Journal
LA English
AB Lipofection, the transfer of genetic material into cells by means of cationic lipids, is of growing interest for in vitro and in vivo approaches. In order to identify ideal lipofection reagents in a HTS, we have developed an automated lipofection method for the transfer of reporter genes into cells and for determination of the lipofection results. The method has specifically been designed and optimized for 96-well microtiter plates and can successfully be carried out by a pipetting robot with accessory equipment. It consists of two sep. parts: (1) pretransfection (preparation of liposomes, formation of lipoplexes, and lipoplex transfer to the cells) and (2) posttransfection (determination of the reporter enzyme activity and the protein content of the transfected cells). Individual steps of the lipofection method were specifically optimized-for example, lipoplex formation and incubation time as well as cell lysis, cell cultivating, and the reporter gene assay. The HTS method facilitates characterization of the transfection properties (efficiency and cytotoxicity) of large nos. of (cationic) lipids in various adherent cell types.
IT **124050-77-7,** Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high-throughput screening method for identification of new lipofection reagents)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

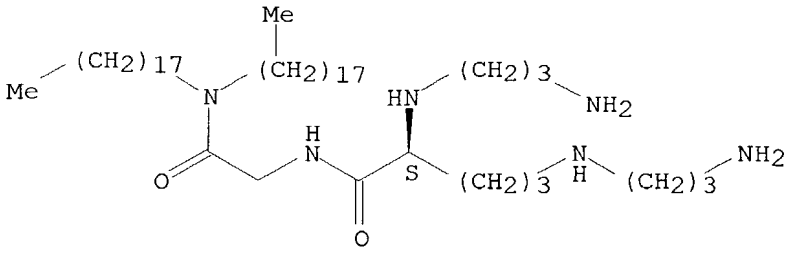
Absolute stereochemistry.



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:624601 CAPLUS
DN 136:319010
TI Approaches to enhancing the retroviral transduction of human synoviocytes
AU Del Vecchio, Maria A.; Georgescu, Helga I.; McCormack, James E.; Robbins, Paul D.; Evans, Christopher H.
CS Department of Human Genetics, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, USA
SO Arthritis Research [online computer file] (2001), 3(4), 259-263
CODEN: ARESFU; ISSN: 1465-9913
URL: http://arthritis-research.com/PDF/AR-3-4-DelVecchio.pdf
PB BioMed Central Ltd.
DT Journal; (online computer file)
LA English
AB This report concerns a clin. trial for rheumatoid arthritis (RA), approved by the US National Institutes of Health and the Food and Drug Administration. An amphotropic retrovirus (MFG-IRAP) was used ex vivo to transfer a cDNA encoding human interleukin-1 receptor antagonist (IL-1Ra) to synovium. The protocol required the transduced cells to secrete at least 30 ng IL-1Ra/106 cells per 48 h before reimplantation. Here we have evaluated various protocols for their efficiency in transducing cultures of human rheumatoid synoviocytes. The most reliably efficient methods used high titer retrovirus (approx. 108 infectious particles/mL). Transduction efficiency was increased further by exposing the cells to virus under flow-through conditions. The use of dioctadecylamidoglycylsperimine (DOGS) as a polycation instead of Polybrene (hexadimethrine bromide) provided an addnl. small increment in efficiency. Under normal conditions of static transduction, standard titer, clin. grade retrovirus (approx. 5 + 105 infectious particles/mL) failed to achieve the expression levels required by the clin. trial. However, the shortfall could be remedied by increasing the time of transduction under static conditions, transducing under flow-through conditions, or transducing during centrifugation.
IT **124050-77-7**, Dogs
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enhancing retroviral transduction of human rheumatoid synoviocytes)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 19 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:525955 CAPLUS
DN 135:112008
TI Amphiphilic and ionic polymer matrixes and derivatives thereof for use in pharmaceutical vesicles
IN De Miguel, Ignacio; Imbertie, Laurent; Betbeder, Didier; Lescure, Francois; Kravtzoff, Roger
PA Biovector Therapeutics SA, Fr.
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001051090	A2	20010719	WO 2001-FR64	20010110
WO 2001051090	A3	20020228		

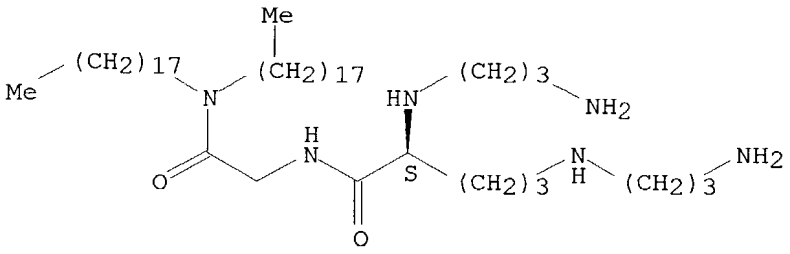
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

			FR 2000-329	A 20000112
			FR 2000-15126	A 20001123
FR 2803526	A1	20010713	FR 2000-329	20000112
FR 2803517	A1	20010713	FR 2000-15126	20001123
			FR 2000-329	A 20000112

AB The invention relates to a novel type of amphiphilic and ionic polymer matrixes comprising a macromol. hydrophilic matrix bearing a pos. or neg. ionic charge, whereby a lipidic phase having a sign opposite to that of the matrix is incorporated therein. The invention also refers to a method for the production and use thereof. A suspension of amphiphilic submicron vesicles was prepared containing submicron particles 72, dipalmitoyl phosphatidyl choline 1.33, cetyl tri-Me ammonium bromide 0.53, and halofantrine 2 mg/mL. The % incorporation of halofantrine in the vesicles was 100%.
IT **124050-77-7,** DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amphiphilic and ionic polymer matrixes and derivs. thereof for use in pharmaceutical vesicles)
RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

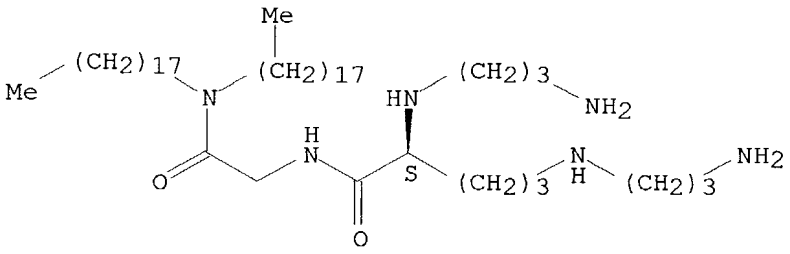
Absolute stereochemistry.



L8 ANSWER 20 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:492847 CAPLUS
DN 136:268001
TI Efficacy of cationic liposome-mediated gene transfer to mesangial cells in vitro and in vivo
AU Madry, Henning; Reszka, Regina; Bohlender, Jurgen; Wagner, Jurgen
CS Laboratory of Experimental Orthopaedics, Department of Orthopaedic Surgery, Saarland University Medical Center, Saarland University, Homburg, 66421, Germany
SO Journal of Molecular Medicine (Berlin, Germany) (2001), 79(4), 184-189
CODEN: JMLME8; ISSN: 0946-2716
PB Springer-Verlag
DT Journal
LA English
AB Mesangial cells represent a major target for gene transfer approaches to the kidney. To establish a liposome-based system for transfection of mesangial cells we analyzed the efficacy and toxicity of different cationic liposomes and other nonviral transfection methods in primary cultures of rat and human mesangial cells using the Escherichia coli β-galactosidase (lacZ) gene as a marker. In addition, an expression vector containing a human renin cDNA under the control of the cytomegalovirus immediate-early promoter/enhancer was generated, introduced into mesangial cells, and assayed in a system of transient gene expression. In vivo, gene transfer was studied after infusion of liposome/DNA complexes in the kidney of rats via the renal artery. Transfection efficiency ranged from 5.5% with DMRIE Liposomes in rat mesangial cells to 1.1% with LipofectAmine liposomes in human mesangial cells. Cytotoxicity following transfection was dependent on the transfection method. Transfection with the human renin expression vector led to the secretion of 11 pg/104 cells/48 h human renin in rat mesangial cells, 3600 pg/104 cells/48 h in 293 cells, and 113 pg/104 cells/48 h human renin in opossum kidney cells. In vivo, infusion of liposomes was accompanied by nephrotoxicity and did not result in marker gene expression. Together the data demonstrate that cationic liposomes are useful tools for transferring genes into mesangial cells, including human mesangial cells. Cationic liposomes provide a functional system for the synthesis and secretion of human renin in mesangial cells and other mammalian kidney cells. The current limitation of the evaluated liposomes for an efficient in vivo gene transfer to mesangial cells is the toxicity upon intrarenal arterial administration.
IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(efficacy of cationic liposome-mediated gene transfer to mesangial

cells in vitro and in vivo)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

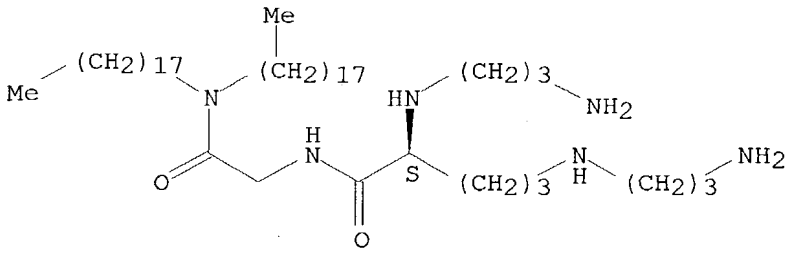
Absolute stereochemistry.



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 21 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:408719 CAPLUS
DN 135:157528
TI In Vitro Gene Transfer with a Novel Galactosylated Spermine Bolaamphiphile
AU Gaucheron, Jerome; Santaella, Catherine; Vierling, Pierre
CS Laboratoire de Chimie Bioorganique, UMR 6001 CNRS-Universite de Nice Sophia-Antipolis Faculte des Sciences, Nice, 06108, Fr.
SO Bioconjugate Chemistry (2001), 12(4), 569-575
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB We describe the synthesis of a α-galacto-ω-spermine bolaamphiphile (GalSper) and report on the gene transfer mediated with lipoplexes it forms either when used alone or in conjunction with DOPE or with DOGS (Transfectam). Lipofection with GalSper was investigated with human HepG2 or murine BNL-CL2 hepatocytes expressing the asialo-glycoprotein (ASGP) receptor, which displays a high affinity for galactosyl residues, or with A549 cells which do not express ASGP. Although lower luciferase expression levels in BNL-CL2 and in HepG2 cells were obtained with GalSper/DOPE N/P 2.5 lipoplexes as compared with control DOGS/DOPE N/P 2.5 particles or with the more pos. charged N/P 5 particles (yet through a different mechanism), specific receptor-mediated endocytosis of DNA can be achieved with this targeted cationic GalSper bolaamphiphile presenting a single galactose residue. The present work suggests that GalSper-based DNA formulations appear as promising synthetic vectors for specific gene delivery to ASGP(+) cells.
IT **124050-77-7,** Transfectam
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(in vitro gene transfer with a novel galactosylated spermine bolaamphiphile)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:241683 CAPLUS
DN 134:271256
TI Methods of forming protein-linked lipidic microparticles, and compositions thereof
IN Papahadjopoulos, Demetrios; Hong, Keelung; Zheng, Weiwen; Kirpotin, Dmitri B.
PA The Regents of the University of California, USA
SO U.S., 26 pp., Cont.-in-part of U.S. Ser. No. 967,791.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6210707	B1	20010403	US 1998-76618	19980512
			US 1996-30578P P	19961112
			US 1997-967791 A2	19971110
US 6071533	A	20000606	US 1997-967791	19971110
			US 1996-30578P P	19961112
CA 2330741	AA	19991118	CA 1999-2330741	19990511
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511
WO 9958694	A1	19991118	WO 1999-US10375	19990511
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
			US 1998-76618 A	19980512
AU 9939834	A1	19991129	AU 1999-39834	19990511
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511
EP 1078079	A1	20010228	EP 1999-922950	19990511
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			US 1998-76618 A	19980512
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JP 2002514432	T2	20020521	JP 2000-548485	19990511
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511

US 6410049	B1	20020625	US 1999-420908	19991020
			US 1996-30578P P	19961112
			US 1997-967791 A3	19971110
US 2002001612	A1	20020103	US 2001-765107	20010116
US 6528087	B2	20030304		
			US 1996-30578P P	19961112
			US 1997-967791 A2	19971110
			US 1998-76618 A1	19980512
US 2002182249	A1	20021205	US 2002-121962	20020412
			US 1996-30578P P	19961112
			US 1997-967791 A1	19971110
			US 1999-420908 A1	19991020
US 2003003143	A1	20030102	US 2002-177939	20020621
			US 1996-30578P P	19961112
			US 1997-967791 A2	19971110
			US 1998-76618 A1	19980512
			US 2001-765107 A1	20010116

PATENT FAMILY INFORMATION:

FAN 1998:338109

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9820857	A1	19980522	WO 1997-US20690	19971110
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				US 1996-30578P P	19961112
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	AU 729655	B2	20010208		
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				WO 1997-US20690W	19971110
	EP 956001	A1	19991117	EP 1997-949417	19971110
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				WO 1997-US20690W	19971110
	JP 2001510457	T2	20010731	JP 1998-522807	19971110
				US 1996-30578P P	19961112
				WO 1997-US20690W	19971110
	US 2002182249	A1	20021205	US 2002-121962	20020412
				US 1996-30578P P	19961112
				US 1997-967791 A1	19971110
				US 1999-420908 A1	19991020

FAN 1999:736953

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9958694	A1	19991118	WO 1999-US10375	19990511
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,				

CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

			US 1998-76618 A	19980512
US 6210707	B1	20010403	US 1998-76618	19980512
			US 1996-30578P P	19961112
			US 1997-967791 A2	19971110
CA 2330741	AA	19991118	CA 1999-2330741	19990511
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511
AU 9939834	A1	19991129	AU 1999-39834	19990511
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511
EP 1078079	A1	20010228	EP 1999-922950	19990511
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511
JP 2002514432	T2	20020521	JP 2000-548485	19990511
			US 1998-76618 A	19980512
			WO 1999-US10375W	19990511

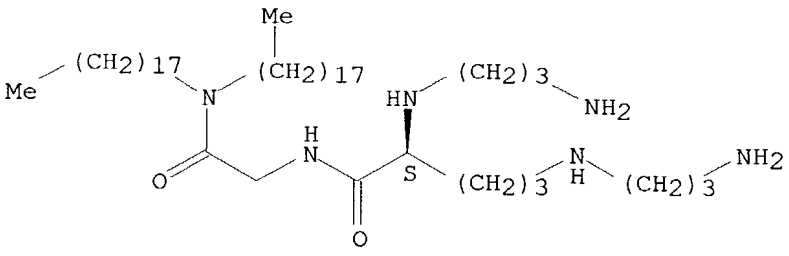
AB The present invention provides for lipid/nucleic acid complexes that have increased shelf life and high transfection activity in vivo following i.v. injection, and methods of preparing such complexes. The methods generally involve contacting a nucleic acid with an organic polycation to produce a condensed nucleic acid, and then combining the condensed nucleic acid with a lipid comprising an amphiphilic cationic lipid to produce the lipid/nucleic acid complex. This complex can be further stabilized by the addition of a hydrophilic polymer attached to hydrophobic side chains. The complex can also be made specific for specific cells, by incorporating a targeting moiety such as an Fab' fragment attached to a hydrophilic polymer. The present invention further relates to lipidic microparticles with attached proteins which have been first conjugated to linker mols. having a hydrophilic polymer domain and a hydrophobic domain capable of stable association with the microparticle, or proteins which have been engineered to contain a hydrophilic domain and a lipid moiety permitting stable association with the microparticle. For example, maleimido-propionylantido-PEG-distearoylphosphatidylethanolamine (Mal-PEG-DSPE) was prepared, conjugated with a single chain Fv antibody reactive against HER2 oncoprotein, and formulated into immunoliposomes for targeting of HER2-overexpressing human breast cancer cells.

IT **124050-77-7,** DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of protein-linked lipidic microparticles for targeting of nucleic acids)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:238066 CAPLUS
DN 134:276493
TI Cationic virosomes as transfer system for genetic material
IN Walti, Ernst Rudolf; Gluck, Reinhard; Klein, Peter
PA Nika Health Products Limited, Liechtenstein
SO U.S., 39 pp., Cont.-in-part of U.S. Ser. No. 171,882.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6210708	B1	20010403	US 1999-414872	19991008
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
				US 1998-171882 A2	19981230
	WO 9741834	A1	19971113	WO 1997-EP2268	19970504
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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				EP 1996-107282 A	19960508
	NZ 504444	A	20001124	NZ 2000-504444	20000510
				EP 1996-107282 A	19960508
				NZ 1997-332666 A	19970504
	WO 2001026628	A1	20010419	WO 2000-EP9540	20000929
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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				US 1999-414872 A	19991008
	EP 1217990	A1	20020703	EP 2000-967824	20000929
	EP 1217990	B1	20040128		
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				US 1999-414872 A	19991008
				WO 2000-EP9540 W	20000929
	JP 2003512306	T2	20030402	JP 2001-529418	20000929
				US 1999-414872 A	19991008
				WO 2000-EP9540 W	20000929
	AT 258428	E	20040215	AT 2000-967824	20000929
				US 1999-414872 A	19991008
				WO 2000-EP9540 W	20000929
	NO 2002001607	A	20020607	NO 2002-1607	20020405
				US 1999-414872 A	19991008
				WO 2000-EP9540 W	20000929

PATENT FAMILY INFORMATION:
FAN 1997:740426

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9741834	A1	19971113	WO 1997-EP2268	19970504
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				EP 1996-107282 A	19960508
	CA 2253561	AA	19971113	CA 1997-2253561	19970504
				EP 1996-107282 A	19960508
	AU 9727766	A1	19971126	AU 1997-27766	19970504
	AU 710170	B2	19990916		
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
	EP 902682	A2	19990324	EP 1997-921852	19970504
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				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
	CN 1225007	A	19990804	CN 1997-196232	19970504
				EP 1996-107282 A	19960508
	BR 9709224	A	19990810	BR 1997-9224	19970504
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
	NZ 332666	A	20000526	NZ 1997-332666	19970504
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
	JP 2000509404	T2	20000725	JP 1997-539526	19970504
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
	ZA 9703885	A	19981106	ZA 1997-3885	19970506
				EP 1996-107282 A	19960508
	HR 970234	B1	20020430	HR 1997-970234	19970507
				EP 1996-107282 A	19960508
	NO 9805137	A	19990104	NO 1998-5137	19981104
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
	KR 2000010780	A	20000225	KR 1998-708906	19981105
				EP 1996-107282 A	19960508
	US 6210708	B1	20010403	US 1999-414872	19991008
				EP 1996-107282 A	19960508
				WO 1997-EP2268 W	19970504
				US 1998-171882 A2	19981230
	NZ 504444	A	20001124	NZ 2000-504444	20000510
				EP 1996-107282 A	19960508
				NZ 1997-332666 A	19970504

AB The present invention relates to a pos. charged virosome for efficient delivery of genetic material to resting or proliferating mammalian cells in vitro and in vivo. The virosome membrane contains cationic and/or polycationic lipids, at least one viral fusion peptide and preferably at least one cell-specific marker, advantageously selected from the group consisting of monoclonal antibodies, antibody fragments F(ab')2 and Fab', cytokines, and growth factors, for a selective detection and binding of

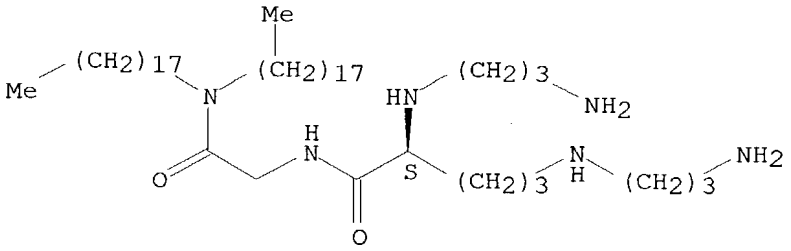
target cells. The invention further relates to a method for the manufacture of the novel virosomes and to applications thereof, particularly for the manufacture of pharmaceutical compns. to treat cancer or leukemia.

IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipid bilayer vesicles for cationic virosomes as transfer system for genetic material)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 24 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:167832 CAPLUS
DN 134:212748
TI Lipid-nucleic acid compositions for stimulating cytokine secretion and inducing an immune response
IN Semple, Sean C.; Harasym, Troy O.; Klimuk, Sandra K.; Kojic, Ljiljiana D.; Bramson, Jonathan L.; Mui, Barbara; Hope, Michael J.
PA Inex Pharmaceuticals Corp., Can.
SO PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001015726	A2	20010308	WO 2000-CA1013	20000828
	WO 2001015726	A3	20010726		
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				US 1999-151211PP	19990827
				US 2000-176406PP	20000113
	AU 2000068139	A5	20010326	AU 2000-68139	20000828
				US 1999-151211PP	19990826
				US 2000-176406PP	20000113
				WO 2000-CA1013 W	20000828
	BR 2000013834	A	20020423	BR 2000-13834	20000828

				US 1999-151211PP 19990827
				US 2000-176406PP 20000113
				WO 2000-CA1013 W 20000828
	EP 1212085	A2	20020612	EP 2000-956004 20000828
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				WO 2000-CA1013 W 20000828
	JP 2003509341	T2	20030311	JP 2001-520138 20000828
				US 1999-151211PP 19990827
				US 2000-176406PP 20000113
				WO 2000-CA1013 W 20000828
	US 2004009943	A1	20040115	US 2003-437263 20030512
				US 1999-151211PP 19990827
				US 2000-176406PP 20000113
				US 2000-649527 A 20000828
				US 2002-379343PP 20020510
				US 2003-454298PP 20030312
				US 2003-460646PP 20030404

PATENT FAMILY INFORMATION:

FAN 1998:766505

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851278	A2	19981119	WO 1998-CA485	19980514
	WO 9851278	A3	20000615		
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	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1997-856374 A 19970514	
	AU 9874221	A1	19981208	AU 1998-74221	19980514
	AU 733310	B2	20010510		
				US 1997-856374 A 19970514	
				WO 1998-CA485 W 19980514	
	EP 1027033	A2	20000816	EP 1998-921310	19980514
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1997-856374 A 19970514	
				WO 1998-CA485 W 19980514	
	JP 2002501511	T2	20020115	JP 1998-548646	19980514
				US 1997-856374 A 19970514	
				WO 1998-CA485 W 19980514	

FAN 2001:666681

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6287591	B1	20010911	US 1998-78954	19980514
				US 1997-856374 B219970514	
	US 2003129221	A1	20030710	US 2001-895480	20010629
				US 1997-856374 B219970514	
				US 1998-78954 A119980514	
	US 2003104044	A1	20030605	US 2002-86477	20020301
				US 1997-856374 B219970514	
				US 1998-78954 A219980514	
				US 1999-151211PP 19990827	

				US 2000-176406PP	20000113
				US 2000-649527 A	220000828
				US 2001-273293PP	20010301

FAN 2003:376681

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003039595	A2	20030515	WO 2002-CA1717	20021107
	WO 2003039595	A3	20030918		

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				US 2001-337522PP	20011107
				US 2002-379343PP	20020510
	US 2004009943	A1	20040115	US 2003-437263	20030512
				US 1999-151211PP	19990827
				US 2000-176406PP	20000113
				US 2000-649527 A	20000828
				US 2002-379343PP	20020510
				US 2003-454298PP	20030312
				US 2003-460646PP	20030404
	US 2004013649	A1	20040122	US 2003-437258	20030512
				US 2002-379343PP	20020510
				US 2003-454298PP	20030312
				US 2003-460646PP	20030404

FAN 2003:435087

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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				US 2000-176406PP	20000113
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				US 2001-273293PP	20010301
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				US 1999-151211PP	19990827
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				US 2000-649527 A	20000828
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				US 2003-460646PP	20030404

FAN 2003:912932

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PI	WO 2003094828	A2	20031120	WO 2003-CA679	20030512
	WO 2003094828	A3	20040205		

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GW, ML, MR, NE, SN, TD, TG

			US 2002-379343PP 20020510
			US 2002-290545 A 20021107
			US 2003-460646PP 20030404
US 2003125292	A1	20030703	US 2002-290545 20021107
			US 2001-337522PP 20011107
			US 2002-379343PP 20020510
US 2004009943	A1	20040115	US 2003-437263 20030512
			US 1999-151211PP 19990827
			US 2000-176406PP 20000113
			US 2000-649527 A 20000828
			US 2002-379343PP 20020510
			US 2003-454298PP 20030312
			US 2003-460646PP 20030404
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			US 2003-460646PP 20030404
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			US 2002-379343PP 20020510
			US 2003-454298PP 20030312
			US 2003-460646PP 20030404

FAN 2003:912933

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003094829	A2	20031120	WO 2003-CA680	20030512
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GW, ML, MR, NE, SN, TD, TG

			US 2002-379343PP 20020510
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				US 2003-460646PP 20030404

FAN 2003:913036

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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			US 2002-379343PP 20020510
			US 2002-290545 A 20021107
			US 2003-460646PP 20030404
US 2003125292	A1	20030703	US 2002-290545 20021107
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			US 2000-176406PP 20000113
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			US 2003-454298PP 20030312
			US 2003-460646PP 20030404

AB Lipid-nucleic acid particles can provide therapeutic benefits, even when the nucleic acid is not complementary to coding sequences in target cells. It has been found that lipid-nucleic acid particles, including those containing non-sequence specific oligodeoxynucleotides, can be used to stimulate cytokine secretion, thus enhancing the overall immune response of a treated mammal. Further, immune response to specific target antigens can be induced by administration of an antigenic mol. in association with lipid particles containing non-sequence specific oligodeoxynucleotides. The nucleic acid which is included in the lipid-nucleic acid particle can be a phosphodiester (i.e., an oligodeoxynucleotide consisting of nucleotide residues joined by phosphodiester linkages) or a modified nucleic acid which includes phosphorothioate or other modified linkages, and may suitably be one which is non-complementary to the human genome, such that it acts to provide immunostimulation in a manner which is independent of conventional base-pairing interactions between the nucleic acid and nucleic acids of the treated mammal. In particular, the nucleic acid may suitably contain an immune-stimulating motif such as a CpG motif, or an immune stimulating palindromic sequence. The cationic lipid included in the nucleic acid particles may be suitably selected from among DODAP, DODMA, DMDMA, DOTAP, DC-Chol, DDAB, DODAC, DMRIE, DOSPA and DOGS. In addition, the lipid particle may suitably contain a modified

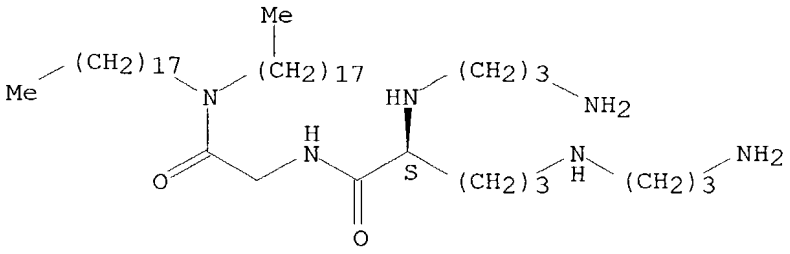
aggregation-limiting lipid such as a PEG-lipid, a PAO-lipid or a ganglioside.

IT **124050-77-7**, DOGS
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(lipid-nucleic acid compns. for stimulating cytokine secretion and inducing an immune response)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 25 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:114958 CAPLUS

DN 134:168319

TI Periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biological use thereof

IN Cevc, Gregor; Huebner, Stefan

PA Idea Ag, Germany

SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001010413	A2	20010215	WO 2000-EP7546	20000803
	WO 2001010413	A3	20010816		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				DE 1999-19936665A	19990804
	JP 2003506398	T2	20030218	JP 2001-514933	20000803
				DE 1999-19936665A	19990804
				WO 2000-EP7546 W	20000803

AB This invention describes a method for preparing pharmaceutically usable compns. comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component which is characterized in that a suspension of non-periodic, preferably mono- or bilayer like, lipid aggregates, a solution of polyelectrolyte mols.,

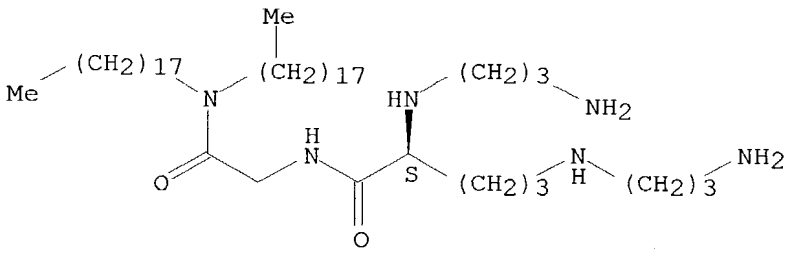
and a solution of oligovalent linkers are sep. made and then mixed to form said periodic structures, the simultaneous presence of said components catalyzing the formation of controlling the rate of formation of said periodic structures comprising at least one layer of lipid component associated with a layer of polyelectrolyte mols.

IT **124050-77-7**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 26 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:95555 CAPLUS

DN 135:13817

TI Enhancement of gene delivery by an analogue of α-MSH in a receptor-independent fashion

AU Chluba, J.; Lima de Souza, D.; Frisch, B.; Schuber, F.

CS Laboratoire de Chimie Bioorganique, UMR 7514 CNRS-ULP, Faculte de Pharmacie, Illkirch, 67400, Fr.

SO Biochimica et Biophysica Acta (2001), 1510(1-2), 198-208
CODEN: BBACAQ; ISSN: 0006-3002

PB Elsevier Science B.V.

DT Journal

LA English

AB In order to transfect melanoma specifically by receptor-mediated endocytosis we prepared dioctadecyl aminoglycylspermine (lipospermine)-DNA complexes with [Nle4,D-Phe7]-α-MSH(4-10), a pseudo-peptide analog of α-MSH (α-MSH) linked to a thiol-reactive phospholipid. With these complexes we obtained an up to 70-fold increase of transfection with B16-F1 melanoma cells. However when B16-G4F, an α-MSH receptor neg. melanoma cell line was transfected, an up to 700-fold increased transfection efficiency was observed The peptide hormone analog was equally efficient when it was only mixed with lipospermine-DNA complexes without covalent coupling. In addition to melanoma cells we also obtained up to 30-fold increased transfection with BN cells (embryonic liver cells). Our data show that an α-MSH analog increased transfection independently of the MSH receptor expression but reaches efficiencies approaching those obtained with peptides derived from viral fusion proteins. The absence of targeting of constructs containing [Nle4,D-Phe7]-α-MSH(4-10) can probably be attributed due to the relatively modest number of MSH receptors at the surface of melanoma. We suggest, however, that the peptide hormone analog used in this study has membrane-active properties and could be of

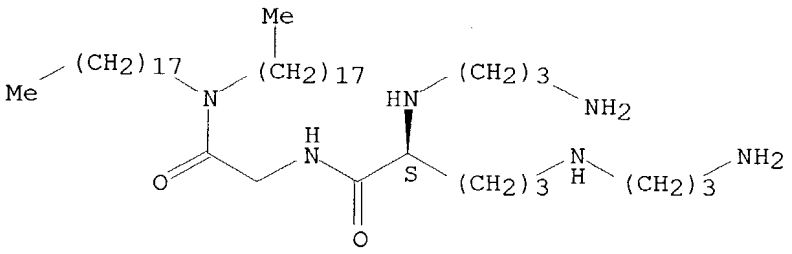
interest as helper agent to enhance non-viral gene delivery presumably by endosomal-destabilizing properties.

IT **124050-77-7DP**, Transfectam, complex with DNA-αMSH analog
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(enhancement of gene delivery by analog of α-MSH in receptor-independent fashion)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 27 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:63801 CAPLUS
DN 134:136682
TI Methods for preparation of lipid-encapsulated therapeutic agents
IN Maurer, Norbert; Wong, Kim F.; Cullis, Pieter R.
PA Inex Pharmaceuticals Corp., Can.
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001005374	A1	20010125	WO 2000-CA843	20000714
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				US 1999-143978PP	19990715
	BR 2000012624	A	20020402	BR 2000-12624	20000714
				US 1999-143978PP	19990715
				WO 2000-CA843 W	20000714
	EP 1194122	A1	20020410	EP 2000-949026	20000714
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				US 1999-143978PP	19990715

				WO 2000-CA843 W 20000714
	JP 2003504391	T2	20030204	JP 2001-510431 20000714
				US 1999-143978PP 19990715
				WO 2000-CA843 W 20000714
	AU 769357	B2	20040122	AU 2000-62562 20000714
				US 1999-143978PP 19990715
				WO 2000-CA843 W 20000714

PATENT FAMILY INFORMATION:

FAN 2001:63800

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001005373	A1	20010125	WO 2000-CA842	20000714
	WO 2001005373	C2	20020829		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

				US 1999-143978PP 19990715
	EP 1196145	A1	20020417	EP 2000-949025 20000714

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

				US 1999-143978PP 19990715
				WO 2000-CA842 W 20000714
	JP 2003504390	T2	20030204	JP 2001-510430 20000714
				US 1999-143978PP 19990715
				WO 2000-CA842 W 20000714

AB Fully lipid-encapsulated therapeutic agent particles of a charged therapeutic agent are prepared by combining a lipid composition containing preformed lipid vesicles, a charged therapeutic agent, and a destabilizing agent to form a mixture of preformed vesicles and therapeutic agent in a destabilizing solvent. The destabilizing solvent is effective to destabilize the membrane of the preformed lipid vesicles without disrupting the vesicles. The resulting mixture is incubated for a period of time sufficient to allow the encapsulation of the therapeutic agent within the preformed lipid vesicles. The destabilizing agent is then removed to yield fully lipid-encapsulated therapeutic agent particles. The preformed lipid vesicles comprise a charged lipid which has a charge which is opposite to the charge of the charged therapeutic agent and a modified lipid having a steric barrier moiety for control of aggregation. For example, larger therapeutic agents, e.g., plasmid pINEX L1018, encoding the luciferase gene, was loaded into preformed lipid vesicles. Preformed lipid vesicles were prepared by slowly adding 10 mg of lipids (DSPC/Cholesterol/DODAP/PEG-CerC14 in a 20:45:25:10 mol% ratio) dissolved in 100% ethanol to 25 mM citrate buffer and extrusion of the ethanolic dispersion of lipid vesicles. Plasmid DNA (0.25 mg) in 40% ethanol was added to the lipid vesicles at room temperature followed by a 1 h incubation of the sample at 40°. The initial plasmid/lipid ratio was 0.025; subsequently, the sample was dialyzed against 2L of 25 mM saline, pH 7.5, for a total of 18-20 h. The final plasmid lipid ratio was 0.022, which corresponds to 88% entrapment. The resulting lipid-encapsulated therapeutic agent particles had an average size of 100 nm and a very small size distribution.

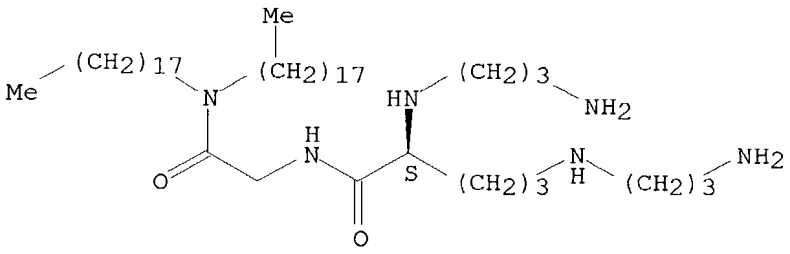
IT **124050-77-7**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of lipid-encapsulated therapeutic agents using destabilizing agents)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 28 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:755211 CAPLUS

DN 133:340208

TI Novel compositions useful for delivering anti-inflammatory agents into a cell

IN Unger, Evan C.; McCreery, Thomas; Sadewasser, David A.

PA ImaRx Pharmaceutical Corp., USA

SO Eur. Pat. Appl., 78 pp.
CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1046394	A2	20001025	EP 2000-303249	20000418
	EP 1046394	A3	20011010		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
				US 1999-294623 A	19990419

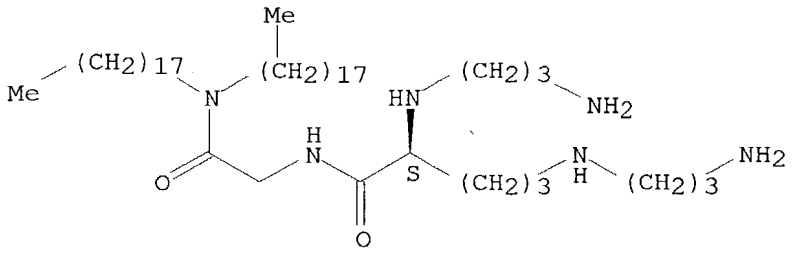
AB The present invention is directed, inter alia, to compns. and their use for delivering compds. into a cell. In a preferred embodiment, the compns. comprise, in combination with the compound to be delivered, an organic halide, a targeting ligand, and a nuclear localization sequence, optionally in the presence of a carrier. Ultrasound may be applied, if desired. The compns. are particularly suitable for the treatment of inflammatory diseases.

IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug carrier; peptide compns. useful for delivering anti-inflammatory agents into a cell)

RN 124050-77-7 CAPLUS

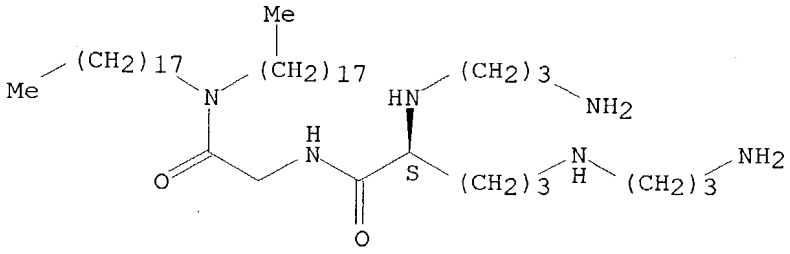
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 29 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:678585 CAPLUS
DN 134:21368
TI Stable integration of large (> 100 kb) PAC constructs in HaCaT keratinocytes using an integrin-targeting peptide delivery system
AU Compton, S. H.; Mecklenbeck, S.; Mejia, J. E.; Hart, S. L.; Rice, M.; Cervini, R.; Barrandon, Y.; Larin, Z.; Levy, E. R.; Bruckner-Tuderman, L.; Hovnanian, A.
CS The Wellcome Trust Centre for Human Genetics, University of Oxford, Oxford, UK
SO Gene Therapy (2000), 7(18), 1600-1605
CODEN: GETHEC; ISSN: 0969-7128
PB Nature Publishing Group
DT Journal
LA English
AB Transfer of large DNA constructs in gene therapy studies is being recognized for its importance in maintaining the natural genomic environment of the gene of interest and providing tissue-specific regulation and control. However, methods used to deliver such constructs have been poorly studied. We used a receptor-mediated, integrin-targeting transfection system enhanced by liposomes, to deliver a 110 kb PAC (P1-based artificial chromosome) to HaCaT keratinocytes. The PAC contained the collagen VII locus, an EGFP (enhanced green fluorescent protein) reporter gene and the puromycin resistance gene (pac) to allow selection of stably transfected cells. Anal. of puromycin resistant and EGFP-expressing colonies by Western blot showed that collagen VII production increased dramatically after transfection, indicating successful transfer of a large fully functional genomic locus. Fluorescent in situ hybridization (FISH) and Southern blot anal. revealed that the PAC had integrated as at least one copy per cell. EGFP expression has persisted for 35 wk, suggesting stable transgene expression. We conclude that the integrin-targeting peptide method of gene delivery is an effective means of stably delivering large DNA constructs to human keratinocytes and could be of benefit for genomic gene therapy approaches.
IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(stable integration of large PAC constructs in HaCaT keratinocytes using integrin-targeting peptide delivery system)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

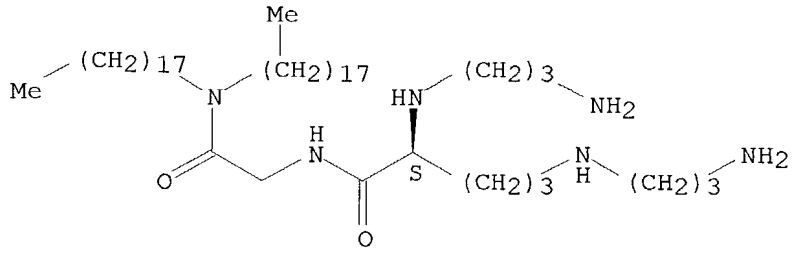
Absolute stereochemistry.



RÉ.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 30 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:611193 CAPLUS
DN 133:275894
TI Cationic lipopolyamines induce degradation of PrPSC in scrapie-infected mouse neuroblastoma cells
AU Winklhofer, Konstanze F.; Tatzelt, Jorg
CS Abteilung Zellulare Biochemie, Max-Planck-Institut fur Biochemie, Martinsried, D-82152, Germany
SO Biological Chemistry (2000), 381(5/6), 463-469
CODEN: BICHF3; ISSN: 1431-6730
PB Walter de Gruyter GmbH & Co. KG
DT Journal
LA English
AB In prion diseases the endogenous prion protein (PrPC) is converted into an abnormally folded isoform, denoted PrPSc, which represents the major component of infectious scrapie prions. The mechanism of the conversion is largely unknown, but the conversion is thought to occur after PrPC has reached the plasma membrane. Here we show that exogenous administration of the cationic lipopolyamine DOSPA interfered with the accumulation of PrPSc in scrapie-infected neuroblastoma cells. Structural anal. of the compds. tested revealed that inhibition of PrPSc was specific for lipids with a headgroup composed of the polyamine spermine and a quaternary ammonium ion between the headgroup and the lipophilic tail. The cationic lipopolyamine DOSPA induced the cellular degradation of preexisting PrPSc aggregates within 12 h and interfered with the de novo synthesis of PrPSc. Biosynthesis of PrPC, or the assembly of sphingolipid-cholesterol microdomains (rafts) on the plasma membrane, were not affected by this inhibitor. After removal of DOSPA and replating into normal medium propagation of PrPSc commenced, although initially at a reduced rate. Incubation of ScN2a cells in free spermidine had no inhibitory effect on the accumulation of PrPSc. Our results indicate that membrane targeting of a small polyamine mol. creates a potent inhibitor of PrPSc propagation and offers the possibility to degrade preexisting PrPSc aggregates in living cells.
IT **124050-77-7**, Transfectam
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic lipopolyamines induce degradation of PrPSC in scrapie-infected mouse neuroblastoma cells)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 31 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:606798 CAPLUS
DN 133:188886
TI Preparation of lipid-nucleic acid particles using a solvent extraction and direct hydration method
IN Zhang, Yuan-peng; Scherrer, Peter; Hope, Michael J.
PA Inex Pharmaceuticals Corp., Can.
SO U.S., 22 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

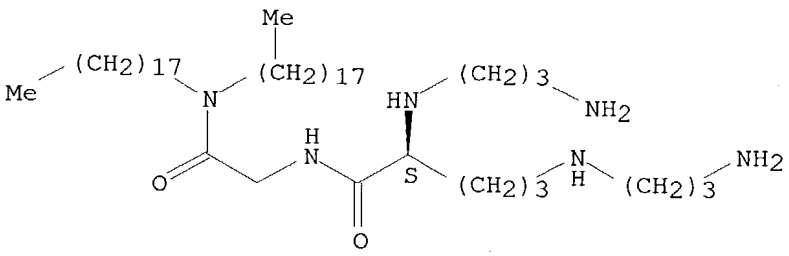
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6110745	A	20000829	US 1998-122622	19980723
			US 1997-72656P P	19970724

AB This invention relates to a novel solvent extraction and direct hydration (SEDH) method for preparing lipid-nucleic acid particles which are useful for the introduction of nucleic acids (e.g., plasmid DNA, antisense mols., ribozymes, etc.) into cells. The lipid-nucleic acid particles prepared using the methods of the present invention have enhanced circulation characteristics and serum stability and, thus, they are extremely effective as nucleic acid delivery vehicles.

IT **124050-77-7P**, DOGS
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of lipid-nucleic acid particles using a solvent extraction and direct hydration method)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 32 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:606754 CAPLUS
DN 133:213073
TI Liposomal delivery system for nucleic acids for gene therapy
IN Thierry, Alain R.
PA United States Dept. of Health and Human Services, USA
SO U.S., 39 pp., Cont.-in-part of U.S. Ser. No. 286,730.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6110490	A	20000829	US 1996-522246	19960129
				US 1994-286730 A2	19940805
				WO 1995-US9867 W	19950804
	US 5908635	A	19990601	US 1994-286730	19940805
	WO 9603977	A1	19960215	WO 1995-US9867	19950804
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1994-286730 A2	19940805

PATENT FAMILY INFORMATION:

FAN 1996:332672

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9603977	A1	19960215	WO 1995-US9867	19950804
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1994-286730 A2	19940805
	US 5908635	A	19990601	US 1994-286730	19940805
	CA 2196780	AA	19960215	CA 1995-2196780	19950804
				US 1994-286730 A	19940805
	AU 9532379	A1	19960304	AU 1995-32379	19950804
	AU 697343	B2	19981001		
				US 1994-286730 A	19940805
				WO 1995-US9867 W	19950804
	EP 774959	A1	19970528	EP 1995-928732	19950804
	EP 774959	B1	19981028		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
				US 1994-286730 A	19940805
				WO 1995-US9867 W	19950804
	AT 172636	E	19981115	AT 1995-928732	19950804
				US 1994-286730 A	19940805
	ES 2123284	T3	19990101	ES 1995-928732	19950804
				US 1994-286730 A	19940805
	US 6110490	A	20000829	US 1996-522246	19960129

US 1994-286730 A219940805
WO 1995-US9867 W 19950804

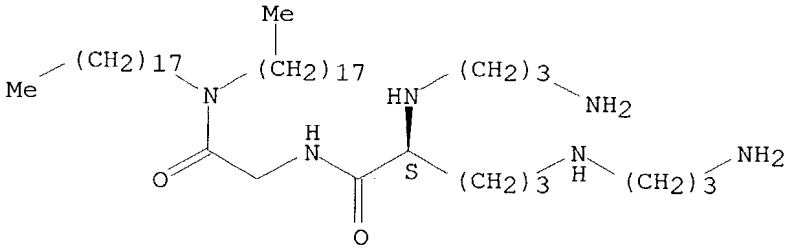
AB The present invention is directed to a liposomal preparation which is based on specific lipid components. The liposomal compds. are also combined with a biol. active agent, forming liposomal compds. These compds. are useful in drug delivery, where specific therapeutic compds. are provided in the liposomes. The specific lipid components of the present invention provide a highly efficient and stable delivery system for nucleic acids. Consequently, one embodiment of the invention provide the liposomal prepns. which are suitable for use in gene therapy.

IT **124050-77-7**
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(liposomal delivery system for nucleic acids for gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 33 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:573693 CAPLUS
DN 133:182939
TI Methods of stimulating angiogenesis
IN Talan, Mark; Gowdak, Luis Henrique Wolff; Grove, Robert L.; Lakatta, Edward G.; Liggitt, H. Denny; Poliakova, Lioubov
PA United States Dept. of Health and Human Services, USA
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000047235	A2	20000817	WO 2000-US3449	20000210
	WO 2000047235	A3	20010104		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

				US 1999-119487PP 19990210
	AU 2000056463	A5	20000829	AU 2000-56463 20000210
				US 1999-119487PP 19990210
				WO 2000-US3449 W 20000210

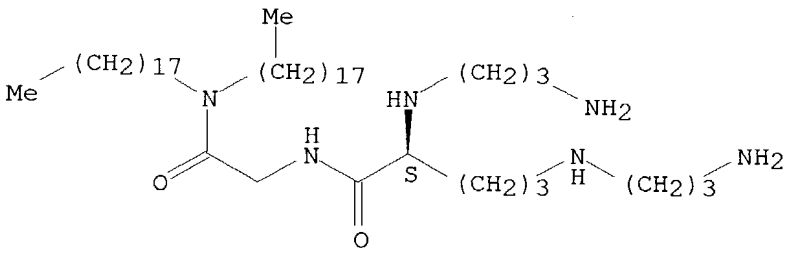
AB The invention is directed to methods for stimulating angiogenesis by in vivo i.m., intradermal, and/or s.c. administration of cationic lipid-nucleic acid complexes. By inducing angiogenesis, these compns. are used to treat ischemia, including diseases which cause or result in insufficient circulation to and perfusion of tissues, such as peripheral vascular disease (e.g., as in diabetes, atherosclerosis) and coronary artery disease.

IT **124050-77-7**, Dogs
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(stimulating angiogenesis with cationic lipid-nucleic acid complexes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 34 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:475564 CAPLUS

DN 133:103732

TI Treatment of viral diseases using an interferon ω-expressing polynucleotide

IN Parker, Suezanne; Horton, Holly

PA Vical Incorporated, USA

SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000040273	A2	20000713	WO 1999-US30843	19991228
	WO 2000040273	A3	20001116		

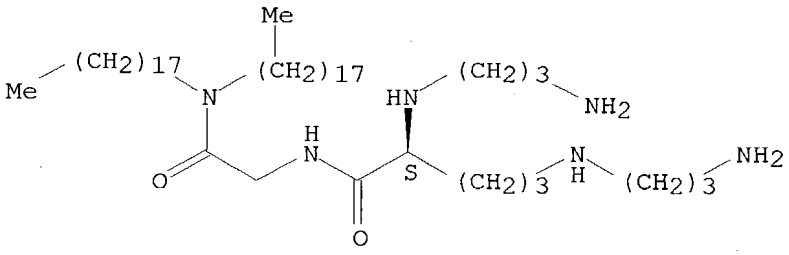
W: CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

US 1999-115403PP 19990108

AB The present invention provides a method of treating a viral disease comprising administering to a mammal a polynucleotide construct comprising a polynucleotide encoding IFNω. The polynucleotide construct of the present invention can be administered free from associated with transfection facilitating agents or as a complex with at least one or more cationic lipids.

IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of viral diseases using an interferon ω-expressing polynucleotide)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



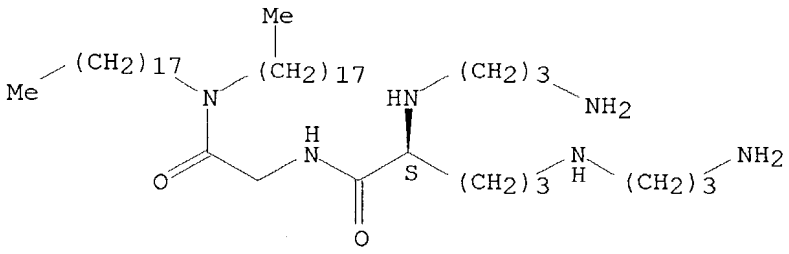
L8 ANSWER 35 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:441467 CAPLUS
DN 133:54513
TI Stabilization of posiplexes for use in transfection
IN Boussif, Otmane; Meyer, Olivier; Kolbe, Hanno V. J.
PA Transgene S.A., Fr.
SO Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1013772	A1	20000628	EP 1998-403267	19981221
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	WO 2000037664	A1	20000629	WO 1999-EP9651	19991208
	W: AU, CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				EP 1998-403267 A	19981221
	EP 1141365	A1	20011010	EP 1999-963433	19991208
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				EP 1998-403267 A	19981221
				WO 1999-EP9651 W	19991208
	JP 2002533354	T2	20021008	JP 2000-589718	19991208
				EP 1998-403267 A	19981221
				WO 1999-EP9651 W	19991208

OS MARPAT 133:54513
AB Described are stable posiplexes that can be used to deliver nucleic acids to a cell for the purpose of providing a therapeutic mol. to the cells of an individual in need of such treatment. Thus, the complexes of nucleic acid with cationic lipids/cationic polymers are stabilized with sulfones, sulfoxides, or aprotic polar compds. such as DMF, dimethylacetamide, tetramethylurea, and their derivs.
IT **124050-77-7**, DOGS

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(stabilization of posiplexes for use in transfection)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

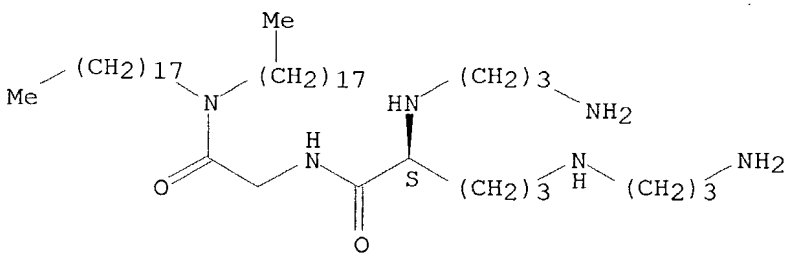
Absolute stereochemistry.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 36 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:419723 CAPLUS
DN 133:291661
TI Experimental design optimization of filamentous phage transfection into mammalian cells by cationic lipids
AU Aujame, Luc; Seguin, Delphine; Droy, Carole; Hessler, Catherine
CS Aventis Pasteur, Marcy l'Etoile, 69280, Fr.
SO BioTechniques (2000), 28(6), 1202-1204,1206,1208,1210,1212-1213
CODEN: BTNQDO; ISSN: 0736-6205
PB Eaton Publishing Co.
DT Journal
LA English
AB A previous study showed that filamentous phage could be efficiently transfected into mammalian cells in the presence of the cationic lipid Transfectam. In the present study, we used an exptl. plan based on a uniform network (Doehlert) matrix to estimate optimal transfection conditions in two different cell lines, CHO and Cos-7. Using the cationic lipid RPR120535b as a model, we show that optimal conditions can be determined much more readily than with standard response curves. Under optimal conditions as analyzed by FACS, up to 60% of Cos-7 and 50% of CHO cells can be transfected. Furthermore, a comparison of different lipids (Transfectam, RPR120535b, TC1-12 and GAP-DLRIE/DOPE) suggests that lipids with multiple amine groups are more efficient for the transfection of filamentous phage.
IT **124050-77-7**, Transfectam
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(exptl. design optimization of filamentous phage transfection into mammalian cells by cationic lipids)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 37 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:254039 CAPLUS
DN 132:289590
TI Peptide-enhanced cationic lipid transfections
IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.; Schifferli, Kevin P.; Gebeyehu, Gulilat
PA Life Technologies, Inc., USA
SO U.S., 103 pp., Cont.-in-part of U.S. 5,736,392.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6051429	A	20000418	US 1997-818200	19970314
			US 1995-477354 B2	19950607
			US 1996-658130 A2	19960604
US 5736392	A	19980407	US 1996-658130	19960604
			US 1995-477354 B2	19950607
WO 9840502	A1	19980917	WO 1998-US5232	19980316
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
			US 1997-818200 A	19970314
AU 9865622	A1	19980929	AU 1998-65622	19980316
			US 1997-818200 A	19970314
			WO 1998-US5232 W	19980316
EP 1007699	A1	20000614	EP 1998-911737	19980316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			US 1997-818200 A	19970314
			WO 1998-US5232 W	19980316
JP 2001517939	T2	20011009	JP 1998-539899	19980316
			US 1997-818200 A	19970314
			WO 1998-US5232 W	19980316
US 6376248	B1	20020423	US 1998-39780	19980316
			US 1997-818200 A2	19970314
US 2003144230	A1	20030731	US 2002-200879	20020723
			US 1995-477354 B2	19950607
			US 1996-658130 A2	19960604

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                                                US 1997-818200 A219970314
                                                US 1998-39780  A119980316
                                                US 2001-911569 A120010723
PATENT FAMILY INFORMATION:
FAN  1997:130043
     PATENT NO.          KIND  DATE            APPLICATION NO.   DATE
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PI   WO 9640961           A1   19961219        WO 1996-US8723    19960604
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             LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                                US 1995-477354 A 19950607
     AU 9659792            A1   19961230        AU 1996-59792     19960604
                                                US 1995-477354 A 19950607
                                                WO 1996-US8723 W  19960604
     EP 874910             A1   19981104        EP 1996-917118    19960604
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI
                                                US 1995-477354 A 19950607
                                                WO 1996-US8723 W 19960604
     JP 11506935           T2   19990622        JP 1996-501227    19960604
                                                US 1995-477354 A 19950607
                                                WO 1996-US8723 W 19960604
FAN  1998:219310
     PATENT NO.          KIND  DATE            APPLICATION NO.   DATE
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PI   US 5736392           A    19980407        US 1996-658130    19960604
                                                US 1995-477354 B219950607
     US 6051429           A    20000418        US 1997-818200    19970314
                                                US 1995-477354 B219950607
                                                US 1996-658130 A219960604
     US 2003144230        A1   20030731        US 2002-200879    20020723
                                                US 1995-477354 B219950607
                                                US 1996-658130 A219960604
                                                US 1997-818200 A219970314
                                                US 1998-39780  A119980316
                                                US 2001-911569 A120010723
FAN  1998:621324
     PATENT NO.          KIND  DATE            APPLICATION NO.   DATE
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PI   WO 9840502           A1   19980917        WO 1998-US5232    19980316
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             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
                                                US 1997-818200 A 19970314
     US 6051429            A    20000418        US 1997-818200    19970314
                                                US 1995-477354 B219950607
                                                US 1996-658130 A219960604
     AU 9865622            A1   19980929        AU 1998-65622     19980316
                                                US 1997-818200 A 19970314
                                                WO 1998-US5232 W  19980316
     EP 1007699            A1   20000614        EP 1998-911737    19980316
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	JP 2001517939	T2	20011009	JP 1998-539899 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316

FAN 2002:309818

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6376248	B1	20020423	US 1998-39780	19980316
				US 1997-818200 A2	19970314
	US 6051429	A	20000418	US 1997-818200	19970314
				US 1995-477354 B2	19950607
				US 1996-658130 A2	19960604
	US 2003069173	A1	20030410	US 2001-911569	20010723
				US 1998-39780 A1	19980316
	US 2003144230	A1	20030731	US 2002-200879	20020723
				US 1995-477354 B2	19950607
				US 1996-658130 A2	19960604
				US 1997-818200 A2	19970314
				US 1998-39780 A1	19980316
				US 2001-911569 A1	20010723

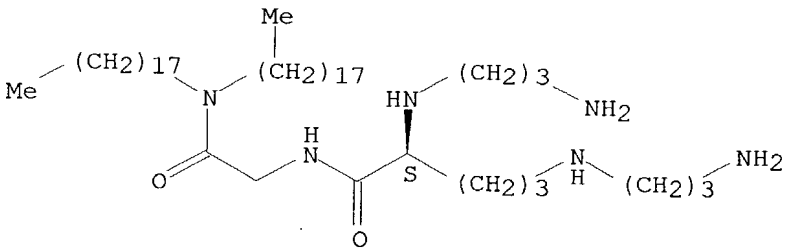
AB The present invention provides compns. useful for transfecting eukaryotic cells comprising nucleic acid complexes with peptides, wherein the peptide is optionally covalently coupled to a nucleic acid-binding group, and cationic lipids or dendrimers as transfection agents. The invention also provides transfection compns. in which a peptide is covalently linked to the transfection agent (lipid, cationic lipid or dendrimer). Inclusion of peptides or modified-peptides in transfection compns. or covalent attachment of peptides to transfection agents results in enhanced transfection efficiency. Methods for the preparation of transfection compns. and methods of using these transfection compns. as intracellular delivery agents and extracellular targeting agents are also disclosed.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(transformation using, increasing efficiency of; increasing efficiency of uptake of transforming DNA complexes with polycations using peptides)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

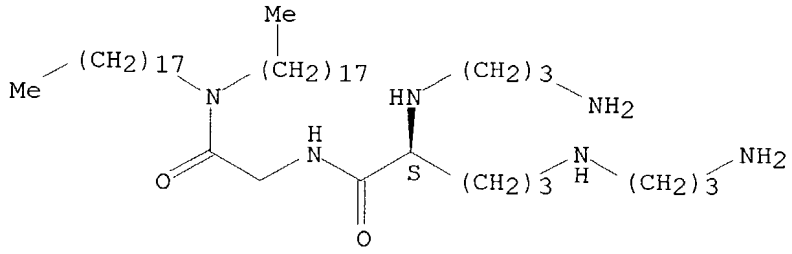
Absolute stereochemistry.



RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 38 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:226436 CAPLUS
DN 133:79122
TI Gene delivery and expression in human retinal pigment epithelial cells: effects of synthetic carriers, serum, extracellular matrix and viral promoters
AU Urtti, Arto; Polansky, Jon; Lui, Ge Ming; Szoka, Francis C.
CS Department of Bio-Pharmaceutical Sciences, Department of Ophthalmology, University of California San Francisco, San Francisco, CA, USA
SO Journal of Drug Targeting (2000), 7(6), 413-421
CODEN: JDTAEH; ISSN: 1061-186X
PB Harwood Academic Publishers
DT Journal
LA English
AB Non-viral gene therapy is a potential treatment to many incurable retinal diseases. To fulfill this promise, plasmid DNA must be delivered to the retinal target cells. We evaluated the efficacy of synthetic DNA complexing compds. in transfecting primary human retinal pigment epithelial (RPE) cells in vitro. Fetal human RPE cells were cultured with or without extracellular matrix (ECM), produced using calf corneal endothelial cells. Plasmids encoding nuclear localizing beta galactosidase or luciferase (pRSVLuc, pCLuc4, pSV2Luc) were complexed in water at various ± charge ratios using cationic lipids (Lipofectin, DOTAP, DOGS), polyethylene imines (25 and 750 kDa), and with degraded 6th generation starburst polyamidoamine dendrimers. Luciferase was quantified using a luminometric assay and beta galactosidase with X-gal staining. Toxicities of transfections were evaluated with the MTT-assay. Using beta galactosidase as the reporter gene naked DNA did not transfect RPE cells at measurable levels whereas 1-5% of the cells expressed histochem. detectable amts. of the gene after transfection with cationic lipid-DNA complexes. In RPE cells, Rous sarcoma virus and cytomegalovirus (CMV) were more efficient promoters than SV40 in driving luciferase expression, and CMV was chosen for further expts. At optimal complex charge ratios, expression levels of luciferase were > 109 light units/mg protein after transfection using dendrimers and PEI25, while transfection mediated with the other carriers resulted in luciferase expression levels of 107-109 light units/mg protein or less. In general, dendrimers and large mol. weight PEI were less toxic than cationic lipids or PEI25 to RPE cells. Serum and ECM decreased gene expression to the RPE cells with all carriers. Despite low percentage of transfected cells the transgene expression per RPE cell is high, important feature in the retinal tissue with small dimensions, in particular in the case of secreted gene products. Degraded dendrimers and high mol. weight PEI exhibited the best combination of high activity and low toxicity in RPE cell transfection.
IT **124050-77-7**
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of synthetic carriers, serum, extracellular matrix and viral promoters on gene delivery and expression in human retinal pigment epithelium)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

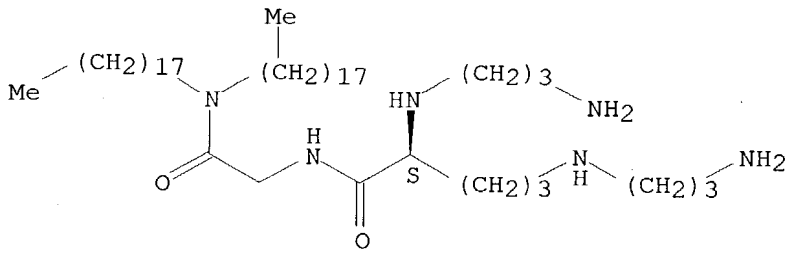
Absolute stereochemistry.



RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 39 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:119426 CAPLUS
DN 132:260319
TI Attenuating the growth of tumors by intratumoral administration of DNA encoding Pseudomonas exotoxin via cationic liposomes
AU Yerushalmi, Noga; Brinkmann, Ulrich; Brinkmann, Elisabeth; Pai, Lee; Pastan, Ira
CS Laboratory of Molecular Biology, National Cancer Institute, National Institutes of Health, Bethesda, MD, 20892, USA
SO Cancer Gene Therapy (2000), 7(1), 91-96
CODEN: CGTHEG; ISSN: 0929-1903
PB Nature America, Inc.
DT Journal
LA English
AB A gene therapy approach was taken to inhibit tumor growth by transfecting tumor cells with a plasmid encoding a truncated but active form of Pseudomonas exotoxin A (PE), using cationic lipids as the transfection reagent. Cells transfected with this plasmid express PE intracellularly and undergo apoptosis. Transfection was optimized in vitro using two cationic lipids, DOGS and DOSPER. A ratio of between 1:4 and 1:10 (weight/weight) was optimal for DOSPER, and the ratio 1:4 was used for the in vivo study when a smaller injection volume was desired. Estimating the activity of the PE-encoding plasmid was done both directly, by counting cells in vitro after transfection, and by using a cytotoxicity assay, and indirectly, by cotransfecting the plasmid with a plasmid carrying a reporter β-galactosidase gene and observing a reduction in β-galactosidase activity with increasing amts. of the PE-encoding plasmid. The cotransfection method was very sensitive, and showed transfection of cells even with 1-2 ng of the PE-encoding plasmid per 105 cells. Complexes of the PE-encoding plasmid together with cationic lipid were injected into tumor xenografts in athymic nude mice. The tumor growth of transfected tumors was attenuated compared with control untreated tumors or tumors transfected with a nontoxin-expressing vector. These results indicate the potential of such a treatment for attenuating solid tumor growth in vivo.
IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(attenuating growth of tumors by intratumoral administration of DNA encoding Pseudomonas exotoxin A via cationic liposomes)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

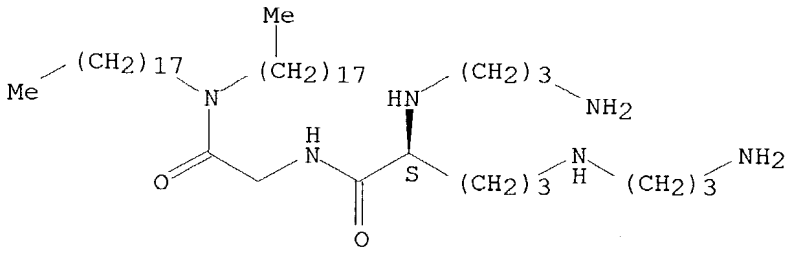
L8 ANSWER 40 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:779231 CAPLUS
DN 132:9020
TI Use of synthetic polycationic amphiphilic substances with fatty acid or hydrocarbon substituents as anti-sepsis agents
IN David, Sunil A.; Morrison, David C.
PA USA
SO U.S., 25 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5998482	A	19991207	US 1998-188720	19981110
			US 1997-64976P P	19971110

AB The present invention describes the ability of synthetic cationic amphiphilic mols. to bind and sequester bacterial lipopolysaccharides and other microbial products that share structural and/or phys.-chemical properties with those of LPS. Such cationic amphiphilic mols. have a mol. structure comprised of a linear or branched backbone derived from polymethylenes or alkylamines which bear at the termini two or more protonatable pos. charged groups derived from primary-amino, imidazolinium, or N, N'-unsubstituted amidinium or guanidium functions. They also possess one or more lipophilic groups derived from fatty acids or hydrocarbon substituents, attached to the backbone via amide, ester, carbamate, or urethane linkages. The use of these compds. provide low cost, effective therapeutic method for the treatment of sepsis and septic shock. E.g., DOSPER completely prevented lethality induced by Staphylococcus aureus in mice. Protection by DOSPER was paralleled by decreased serum TNF-α levels. At the same time, DOSPER had neither any significant antimicrobial activity up to 40 μg/mL, nor it enhanced the antibacterial effect of imipenem. Mice receiving cumulative doses of 120 μg of DOSPER tolerated the compound well, showing no detectable signs of acute toxicity.

IT **124050-77-7**, Transfectam
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polycationic amphiphilic substances with fatty acid or hydrocarbon substituents as anti-sepsis agents)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

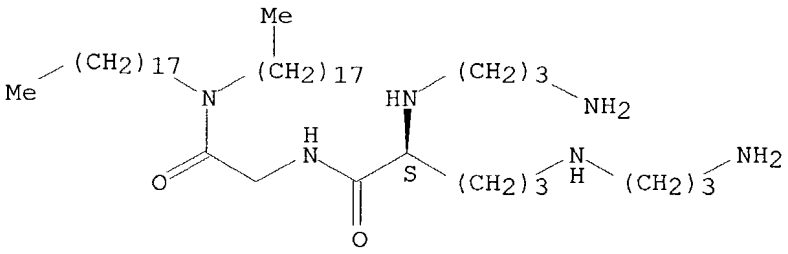


RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 41 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:728856 CAPLUS
DN 132:74224
TI DNA packing in stable lipid complexes designed for gene transfer imitates DNA compaction in bacteriophage
AU Schmutz, M.; Durand, D.; Debin, A.; Palvadeau, Y.; Etienne, A.; Thierry, A. R.
CS Institut de Genetique et de Biologie Moleculaire et Cellulaire, Centre National de la Recherche Scientifique/Institut National de la Sante et de la Recherche Medicale/Universite Louis Pasteur, Illkirch, 67404, Fr.
SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(22), 12293-12298
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB The structure of complexes made from DNA and suitable lipids (lipoplex, Lx) was examined by cryo-electron microscopy (cryoEM). The authors observed a distinct concentric ring-like pattern with striated shells when using plasmid DNA. These spherical multilamellar particles have a mean diameter of 254 nm with repetitive spacing of 7.5 nm with striation of 5.3 nm width. Small angle x-ray scattering revealed repetitive ordering of 6.9 nm, suggesting a lamellar structure containing at least 12 layers. This concentric and lamellar structure with different packing regimes also was observed by cryoEM when using linear double-stranded DNA, single-stranded DNA, and oligodeoxynucleotides. DNA chains could be visualized in DNA/lipid complexes. Such specific supramol. organization is the result of thermodn. forces, which cause compaction to occur through concentric winding of DNA in a liquid crystalline phase. CryoEM examination of T4 phage DNA packed either in T4 capsides or in lipidic particles showed similar patterns. Small angle x-ray scattering suggested an hexagonal phase in Lx-T4 DNA. The results indicate that both lamellar and hexagonal phases may coexist in the same Lx preparation or particle and that transition between both phases may depend on equilibrium influenced by type and length of the DNA used.
IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(DNA packing in stable lipid complexes designed for gene transfer imitates DNA compaction in bacteriophage)
RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 42 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:718868 CAPLUS
DN 131:318577
TI Methods for producing recombinant mammalian cells harboring a yeast artificial chromosome
IN Loring, Jeanne F.; Choi, Theodore; Kay, Robert M.
PA Genpharm International, Inc., USA
SO U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 79,444, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5981175	A	19991109	US 1994-187161	19940125
				US 1993-1493	19930107
				US 1993-79444	19930618

PATENT FAMILY INFORMATION:
FAN 1994:155918

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9400569	A1	19940106	WO 1993-US5873	19930618
	W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1992-900972	19920618
				US 1993-1493	19930107
	AU 9345410	A1	19940124	AU 1993-45410	19930618
				US 1992-900972	19920618
				US 1993-1493	19930107
				WO 1993-US5873	19930618
	EP 648265	A1	19950419	EP 1993-915422	19930618
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
				US 1992-900972	19920618
				US 1993-1493	19930107
				WO 1993-US5873	19930618
	JP 07508410	T2	19950921	JP 1993-502483	19930618
				US 1992-900972	19920618

US 1993-1493 19930107
WO 1993-US5873 19930618

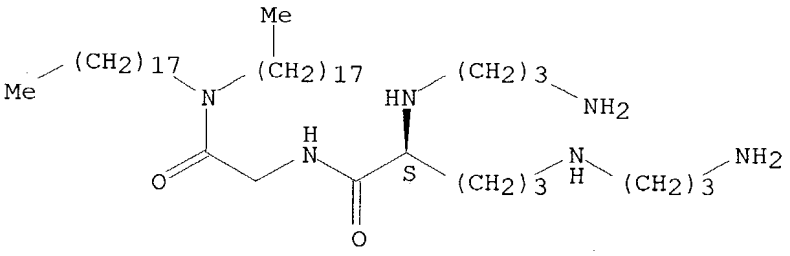
AB The present invention provides methods and compns. for transferring large transgene polynucleotides and unlinked selectable marker polynucleotides into eukaryotic cells by a novel method designated co-lipofection. The large transgene or homologous targeting construct is transferred with yeast-derived YAC sequences in polynucleotide linkage, but yeast-derived YAC sequences may be removed by restriction enzymes and pulsed gel electrophoresis. The large transgene(s) and/or homologous targeting construct(s) are generally mixed with the unlinked second polynucleotide and contacted with cationic lipid (e.g.DOGS, DORMA, DOTAP) to form cationic lipid-DNA complexes. The methods and compns. of the invention are used to produce novel transgenic non-human animals harboring large transgenes, such as a transgene comprising a human APP gene or human Ig gene.

IT **124050-77-7,** DOGs
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods for producing recombinant mammalian cells harboring a yeast artificial chromosome)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 43 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:704853 CAPLUS
DN 131:314184
TI Lipid-nucleic acid particles prepared via a hydrophobic lipid-nucleic acid complex intermediate and use for gene transfer
IN Wheeler, Jeffery J.; Bally, Marcel B.; Zhang, Yuan-Peng; Reimer, Dorothy L.; Hope, Michael; Cullis, Pieter R.; Scherrer, Peter
PA Inex Pharmaceuticals Corp., Can.
SO U.S., 63 pp., Cont.-in-part of U.S. 5,705,385.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5976567	A	19991102	US 1996-660025	19960606
			US 1995-484282 A2	19950607
			US 1995-485458 A2	19950607

US 5705385	A	19980106	US 1995-485458	19950607
US 5981501	A	19991109	US 1995-484282	19950607
CA 2222328	AA	19961219	CA 1996-2222328	19960606
			US 1995-484282 A	19950607
			US 1995-485458 A	19950607
US 6534484	B1	20030318	US 1999-436933	19991108
			US 1995-484282 A1	19950607
US 6586410	B1	20030701	US 2000-566700	20000508
			US 1995-484282 A2	19950607
			US 1995-485458 A2	19950607
			US 1996-660025 A1	19960606
			US 1999-431594 A1	19991101
US 2002192651	A1	20021219	US 2001-875805	20010605
			US 1995-484282 A2	19950607
			US 1995-485458 A2	19950607
			US 1996-660025 A1	19960606
			US 1999-431594 A1	19991101
			US 2000-566700 A1	20000508
US 2003181410	A1	20030925	US 2003-374673	20030224
			US 1995-484282 A1	19950607
			US 1999-436933 A1	19991108

PATENT FAMILY INFORMATION:

FAN 1997:124470

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9640964	A2	19961219	WO 1996-US9949	19960606
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
				US 1995-484282 A	19950607
				US 1995-485458 A	19950607
	US 5705385	A	19980106	US 1995-485458	19950607
	US 5981501	A	19991109	US 1995-484282	19950607
	CA 2222328	AA	19961219	CA 1996-2222328	19960606
				US 1995-484282 A	19950607
				US 1995-485458 A	19950607
	AU 9663307	A1	19961230	AU 1996-63307	19960606
	AU 723163	B2	20000817		
				US 1995-484282 A	19950607
				US 1995-485458 A	19950607
				WO 1996-US9949 W	19960606
	EP 832271	A2	19980401	EP 1996-922432	19960606
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1995-484282 A	19950607
				US 1995-485458 A	19950607
				WO 1996-US9949 W	19960606
	JP 11507537	T2	19990706	JP 1996-502106	19960606
				US 1995-484282 A	19950607
				US 1995-485458 A	19950607
				WO 1996-US9949 W	19960606
	US 6534484	B1	20030318	US 1999-436933	19991108
				US 1995-484282 A1	19950607
	US 2003181410	A1	20030925	US 2003-374673	20030224
				US 1995-484282 A1	19950607
				US 1999-436933 A1	19991108

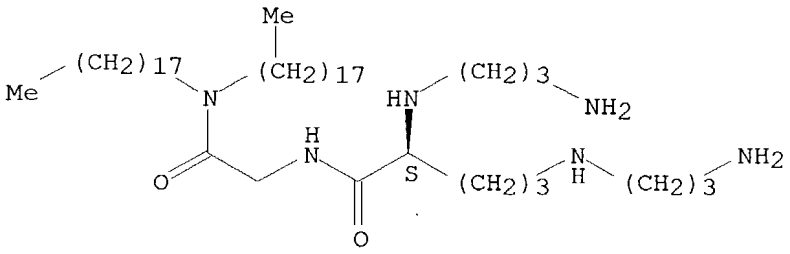
AB Novel lipid-nucleic acid particulate complexes which are useful for in vitro or in vivo gene transfer are described. The particles can be formed using either detergent dialysis methods or methods which utilize organic solvents. Upon removal of a solubilizing component (i.e., detergent or an organic solvent) the lipid-nucleic acid complexes form particles wherein the nucleic acid is serum-stable and is protected from degradation The particles thus formed have access to extravascular sites and target cell populations and are suitable for the therapeutic delivery of nucleic acids.

IT **124050-77-7**, DOGS
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(lipid-nucleic acid particles prepared via a hydrophobic lipid-nucleic acid complex intermediate and use for gene transfer)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 44 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:685894 CAPLUS

DN 132:97972

TI Expression of β-galactosidase gene and endothelial nitric oxide synthase gene in rat vascular smooth muscle cells after in vitro lipotransfection

AU Jozkowicz, A.; Dulak, J.; Guevara, I.; Wybranska, I.; Dembinska-Kiec, A.

CS Kopernika 15A, Department of Clinical Biochemistry, Collegium Medicum of Jagiellonian University, Krakow, 31-501, Pol.

SO Clinica Chimica Acta (1999), 288(1-2), 1-19
CODEN: CCATAR; ISSN: 0009-8981

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

AB The aim of this study was to optimize the conditions for in vitro lipotransfection of rat vascular smooth muscle cells (VSMC) with bacterial β-galactosidase gene and bovine endothelial nitric oxide synthase (ecNOS) gene. Transfection efficiency of four liposomes: Transfectam, Lipofectin, Unifectin-10, and Maxifectin was compared. The best results (efficiency 1-5%) were obtained with Maxifectin, when transfections were performed in VSMC cultures being at 50% confluency, with 1 μg DNA and 10 μl liposome per well, and when the liposome/DNA complexes were coincubated with the cells for 24 h. This method allowed detection of the transgene activity 12 h after the beginning of the transfection, with maximum values between the second and fourth days. The expression of the potentially therapeutic ecNOS gene was evidenced by confirmation of ecNOS

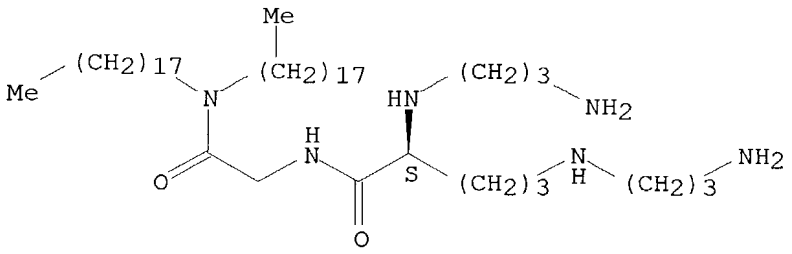
mRNA generation, indirect detection of active ecNOS protein and by measurement of nitrite ion accumulation in the medium from the transfected cell cultures.

IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(expression of β-galactosidase gene and endothelial NO synthase gene in rat vascular smooth muscle cells after in vitro lipotransfection)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 45 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:575688 CAPLUS

DN 132:147321

TI Lipopolyamine-mediated transfection of reporter plasmids into a fish cell line

AU Villalobos, Patricio; Rojas, M. Veronica; Conejeros, Pablo; Marshall, Sergio H.

CS Facultad de Ciencias Basicas y Matematicas, Universidad Catolica de Valparaiso, Valparaiso, 2950, Chile

SO EJB Electronic Journal of Biotechnology [Electronic Publication] (1999), 2(2), No pp. Given
CODEN: EEBIF6; ISSN: 0717-3458
URL: http://www.ejb.org/content/vol2/issue2/full/5/reprint.asp

PB Universidad Catolica de Valparaiso

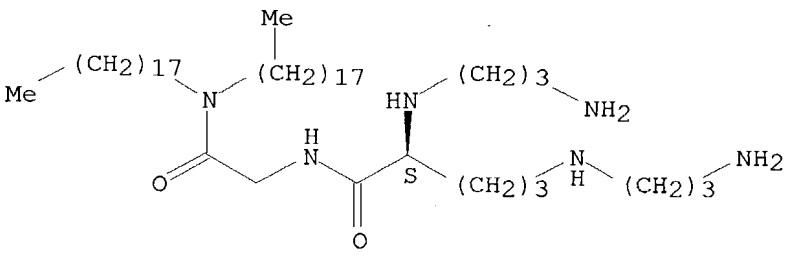
DT Journal; (online computer file)

LA English

AB Conditions have been optimized to transfect the fish cell line CHSE-214 to measure expression, maintenance and putative chromosomal integration of the reporter gene LUC, spliced into two versions of an expression vector. The first is pCMVL, and the second p103, a novel pCMVL-derived plasmid to which a highly conserved tandem repeat from the salmon genome was added in an inverted configuration flanking the LUC gene to promote its chromosomal integration. A minimal ratio of one to one, lipopolyamine carrier to plasmid DNA, was enough to efficiently transfect the cell line to follow the fate of target DNAs up to five cell passages. In this time-span we demonstrated the maintenance of the foreign DNA in the cells, the concomitant expression of the reporter gene, and a higher stability of p103 over the control plasmid which might suggest a higher potential for integration. Thus, we define an efficient model system for future in vitro evaluation of potential target genes of com. interest for fish transgenesis.

IT **124050-77-7**, Transfectam
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(lipopolyamine-mediated transfection of reporter plasmids into a fish cell line)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 46 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:528980 CAPLUS
DN 131:153753
TI Genetic therapy of hyperlipidemia by mutation of apolipoprotein genes
IN Steer, Clifford J.; Kren, Betsy T.; Bandyopadhyay, Paramita T.; Roy-Chowdhury, Jayanta
PA Regents of the University of Minnesota, USA; Albert Einstein College of Medicine of Yeshiva University
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940789	A1	19990819	WO 1998-US17908	19980828
	W: AL, AM, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630
	US 6524613	B1	20030225	US 1998-108006	19980630
				US 1997-45288P P	19970430
				US 1997-54837P P	19970805
				US 1997-64996P P	19971110
				US 1998-74497P P	19980212
				WO 1998-US8834 A2	19980430
	CA 2320965	AA	19990819	CA 1998-2320965	19980828
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630

				WO 1998-US17908W 19980828
	AU 9892958	A1	19990830	AU 1998-92958 19980828
				US 1998-74497P P 19980212
				US 1998-108006 A 19980630
				WO 1998-US17908W 19980828
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	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
				US 1998-74497P P 19980212
				US 1998-108006 A 19980630
				WO 1998-US17908W 19980828
	JP 2002534353	T2	20021015	JP 2000-531065 19980828
				US 1998-74497P P 19980212
				US 1998-108006 A 19980630
				WO 1998-US17908W 19980828

PATENT FAMILY INFORMATION:

FAN 1998:728604

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	WO 9849350	A1	19981105	WO 1998-US8834 19980430
	W: AL, AM, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
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				US 1997-54837P P 19970805
				US 1997-64996P P 19971110
	AU 9873654	A1	19981124	AU 1998-73654 19980430
	AU 749410	B2	20020627	
				US 1997-45288P P 19970430
				US 1997-54837P P 19970805
				US 1997-64996P P 19971110
				WO 1998-US8834 W 19980430
	EP 979311	A1	20000216	EP 1998-920930 19980430
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
				US 1997-45288P P 19970430
				US 1997-54837P P 19970805
				US 1997-64996P P 19971110
				WO 1998-US8834 W 19980430
	NZ 500694	A	20010928	NZ 1998-500694 19980430
				US 1997-45288P P 19970430
				US 1997-54837P P 19970805
				US 1997-64996P P 19971110
				WO 1998-US8834 W 19980430
	JP 2002511851	T2	20020416	JP 1998-547429 19980430
				US 1997-45288P P 19970430
				US 1997-54837P P 19970805
				US 1997-64996P P 19971110
				WO 1998-US8834 W 19980430
	US 6524613	B1	20030225	US 1998-108006 19980630
				US 1997-45288P P 19970430
				US 1997-54837P P 19970805
				US 1997-64996P P 19971110
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				WO 1998-US8834 A219980430

FAN 2003:150454

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6524613	B1	20030225	US 1998-108006	19980630
				US 1997-45288P P	19970430
				US 1997-54837P P	19970805
				US 1997-64996P P	19971110
				US 1998-74497P P	19980212
				WO 1998-US8834 A2	19980430
	WO 9849350	A1	19981105	WO 1998-US8834	19980430
	W: AL, AM, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1997-45288P P	19970430
				US 1997-54837P P	19970805
				US 1997-64996P P	19971110
	CA 2320965	AA	19990819	CA 1998-2320965	19980828
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630
				WO 1998-US17908W	19980828
	WO 9940789	A1	19990819	WO 1998-US17908	19980828
	W: AL, AM, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630
	AU 9892958	A1	19990830	AU 1998-92958	19980828
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630
				WO 1998-US17908W	19980828
	EP 1054595	A1	20001129	EP 1998-945797	19980828
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630
				WO 1998-US17908W	19980828
	JP 2002534353	T2	20021015	JP 2000-531065	19980828
				US 1998-74497P P	19980212
				US 1998-108006 A	19980630
				WO 1998-US17908W	19980828

AB The present invention concerns the introduction of specific alterations in the genes that encode 3 apolipoproteins, ApoA1, ApoB and ApoE. The alternations in ApoA1 introduce a cysteine residue so that disulfide-crosslinked ApoA1 homodimers and Apo A1/A2 heterodimers can be formed. The alterations in ApoB introduce stop codons or frameshift mutations that cause the production of a truncated ApoB protein. The alterations in ApoE introduce specific point mutations that have been identified as protective. The production in the liver of a subject of these altered proteins reduces the risk of the subjects developing atherosclerosis. In one embodiment the genetic alterations are introduced by use of chimeric, mixed RNA/DNA, duplex oligonucleotides. The use of

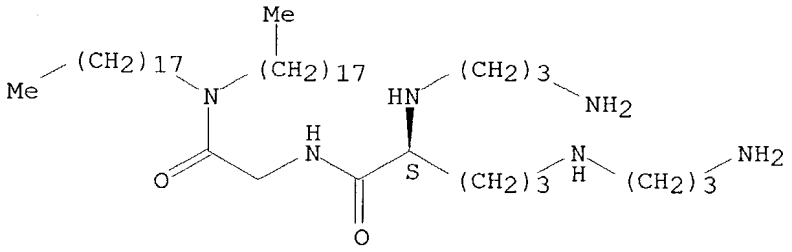
chimeric mutational vectors and various delivery systems (lipid nanospheres, vesicles, or lactosylated-polyethylenimine/polyethylenimine complexes) are exemplified for the mutagenesis of blood coagulation factor IX in mammalian cells.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(genetic therapy of hyperlipidemia by mutation of apolipoprotein genes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 47 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:355754 CAPLUS

DN 131:18016

TI Treatment of cancer using cytokine-expressing polynucleotides and compositions therefor

IN Horton, Holly; Parker, Suezanne; Manthorpe, Marston; Felgner, Philip

PA Vical, Inc., USA

SO PCT Int. Appl., 188 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9926663	A2	19990603	WO 1998-US24830	19981120
	WO 9926663	A3	20000106		
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1997-67087P P	19971120
				US 1998-79914P P	19980330
				US 1998-100820PP	19980915
	CA 2309766	AA	19990603	CA 1998-2309766	19981120
				US 1997-67087P P	19971120
				US 1998-79914P P	19980330
				US 1998-100820PP	19980915
				WO 1998-US24830W	19981120
	EP 1032428	A2	20000906	EP 1998-960333	19981120
	EP 1032428	B1	20030618		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

			US 1997-67087P P 19971120
			US 1998-79914P P 19980330
			US 1998-100820PP 19980915
			WO 1998-US24830W 19981120
JP 2001523480	T2	20011127	JP 2000-521864 19981120
			US 1997-67087P P 19971120
			US 1998-79914P P 19980330
			US 1998-100820PP 19980915
			WO 1998-US24830W 19981120
AT 243045	E	20030715	AT 1998-960333 19981120
			US 1997-67087P P 19971120
			US 1998-79914P P 19980330
			US 1998-100820PP 19980915
			WO 1998-US24830W 19981120

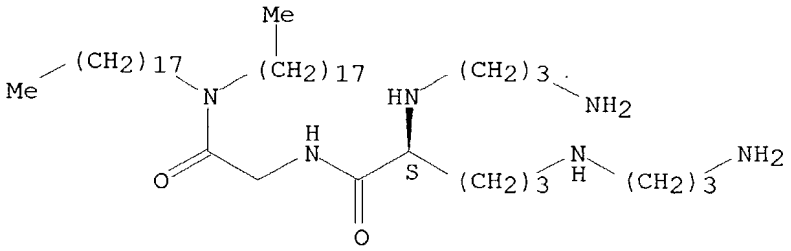
AB The present invention provides a pharmaceutical composition, comprising a non-infectious, non-integrating polynucleotide construct comprising a polynucleotide encoding an interferon ω and one or more cationic compds. The present invention also provides methods of treating cancer in a mammal, comprising administering into a tissue of the mammal a non-infectious, non-integrating polynucleotide construct comprising a polynucleotide encoding a cytokine. In addition, the present invention also relates to the methodol. for selective transfection of malignant cells with polynucleotides expressing therapeutic or prophylactic mols. in intracavity tumor bearing mammals. More specifically, the present invention provides a methodol. for the suppression of an intra-cavity dissemination of malignant cells, such as i.p. dissemination.

IT **124050-77-7**
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(gene therapy of cancer using cytokine-expressing polynucleotides)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 48 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:350607 CAPLUS

DN 131:14825

TI A method of increasing nucleic acid synthesis with ultrasound

IN Unger, Evan C.; McCreery, Thomas; Sadewasser, David

PA ImaRx Pharmaceutical Corp., USA

SO PCT Int. Appl., 124 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9925385	A1	19990527	WO 1998-US23843	19981111
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1997-971540	19971117
	AU 9913906	A1	19990607	AU 1999-13906	19981111
				US 1997-971540	19971117
				WO 1998-US23843	19981111

OS MARPAT 131:14825

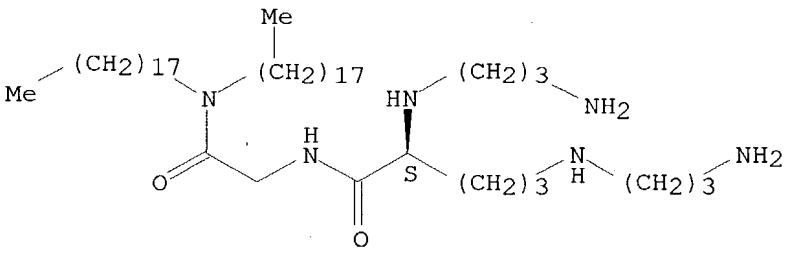
AB The present invention is directed to a method of increasing nucleic acid synthesis in a cell comprising administering to the cell a therapeutically effective amount of ultrasound for a therapeutically effective time such that said administration of said ultrasound results in said increased nucleic acid synthesis. The nucleic acid sequence may comprise an endogenous sequence or an exogenous sequence. In particular, the invention is directed to increasing the expression of stress proteins and repair proteins.

IT **124050-77-7**, Transfectam
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(carrier; method of increasing nucleic acid synthesis with ultrasound)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 49 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:262163 CAPLUS

DN 130:301682

TI Methods for encapsulating nucleic acids in lipid bilayers

IN Saravolac, Edward G.; Zhang, Yuan-Peng; Wheeler, Jeffery J.; Cullis, Pieter R.; Scherrer, Peter; Kojic, Ljiljana D.; Ludkovski, Olga

PA Inex Pharmaceuticals Corporation, Can.

SO PCT Int. Appl., 90 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9918933	A2	19990422	WO 1998-US21500	19981009

WO 9918933 A3 19990701
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 1997-63473P P 19971010
CA 2309727 AA 19990422 CA 1998-2309727 19981009
US 1997-63473P P 19971010
WO 1998-US21500W 19981009
AU 9913604 A1 19990503 AU 1999-13604 19981009
US 1997-63473P P 19971010
WO 1998-US21500W 19981009
EP 1023048 A1 20000802 EP 1998-957320 19981009
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
US 1997-63473P P 19971010
WO 1998-US21500W 19981009

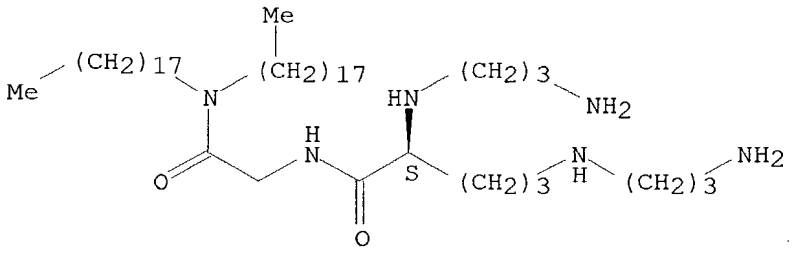
AB The present invention relates to lipid-based formulations for nucleic acid delivery to cells, methods for the preparation of such formulations and, in particular, to lipid-encapsulated plasmids. The compns. are safe and practical for clin. use. In addition, the present invention provides methods for introducing nucleic acids into cells and for inhibiting tumor growth in cells using such lipid-nucleic acid formulations.

IT **124050-77-7**, Dogs
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(methods for encapsulating nucleic acids in lipid bilayers)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 50 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:240404 CAPLUS

DN 131:39277

TI Lipopolyamines: novel antiendotoxin compounds that reduce mortality in experimental sepsis caused by gram-negative bacteria

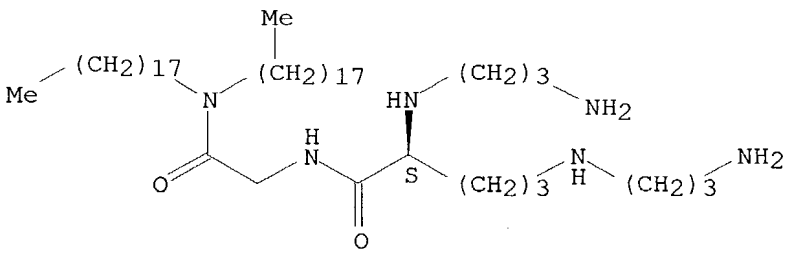
AU David, Sunil A.; Silverstein, Richard; Amura, Claudia R.; Kielian, Tammy; Morrison, David C.

CS Department of Microbiology, Molecular Genetics and Immunology, University of Kansas Medical Center, Kansas City, KS, 66160, USA

SO Antimicrobial Agents and Chemotherapy (1999), 43(4), 912-919

CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB The interactions of lipopolyamines, a class of structurally unique compds. currently being used as transfection (lipofection) agents, with lipopolysaccharide (LPS) have been characterized. Our studies have demonstrated that 1,3-di-oleoyloxy-2-(6-carboxyspermyl)-propylamide, available com. as DOSPER, binds to purified LPS with an affinity of about 1/10 that of polymyxin B. This essentially nontoxic compound inhibits, in a dose-dependent manner, LPS-induced activation of the Limulus clotting cascade and the production of tumor necrosis factor alpha (TNF-α) interleukin-6 (IL-6), and nitric oxide from LPS-stimulated J774.A1 cells, a murine macrophage-like cell line. Cytokine inhibition is paralleled by decreased steady-state levels of TNF-α and IL-6 mRNA and inhibits the nuclear translocation of nuclear factor kappa B. These findings suggest that the lipopolyamine compound sequesters LPS, thereby blocking downstream cellular activation events that lead to the production of proinflammatory mediators. Administration of DOSPER to D-galactosamine-sensitized mice challenged either with LPS or with Escherichia coli organisms provided significant protection against lethality both with and without antibiotic chemotherapy. Partial protection is evident in LPS-challenged mice treated with DOSPER as late as 2 to 4 h following the endotoxin challenge. A greater degree of protection is observed in E. coli-challenged animals receiving ceftazidime than in those receiving imipenem, which is probably attributable to the higher levels of LPS released in vivo by the former antibiotic. Potent antiendotoxic activity, low toxicity, and ease of synthesis render the lipopolyamines candidate endotoxin-sequestering agents of potential significant therapeutic value.
IT **124050-77-7,** DOGS
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipopolyamines: antiendotoxin compds. that reduce mortality in exptl. sepsis caused by gram-neg. bacteria)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

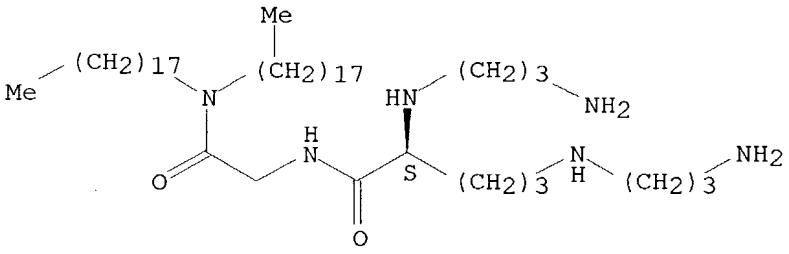


RE.CNT 83 THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 51 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:151469 CAPLUS
DN 130:321312

TI Synthetic DNA-compacting peptides derived from human sequence enhance cationic lipid-mediated gene transfer in vitro and in vivo
AU Schwartz, B.; Ivanov, M-A.; Pitard, B.; Escriou, V.; Rangara, R.; Byk, G.; Wils, P.; Crouzet, J.; Scherman, D.
CS UMR 133 CNRS, Rhone-Poulenc Rorer Gencell, CRVA, Vitry/Seine, 94 403, Fr.
SO Gene Therapy (1999), 6(2), 282-292
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton Press
DT Journal
LA English
AB Cationic lipids can deliver genes efficiently in vitro, but are generally inhibited by the presence of serum, and their efficiency in vivo is much lower than in vitro. An attractive strategy is to induce strong DNA compaction by its association with proteins, before addition of lipids. However the use of whole proteins might present both production and immunol. limitations. We have devised a system in which DNA is associated with short peptides derived from human histone or protamine, before the addition of a cationic lipid or polymer. Peptides strongly associating with DNA confer to such peptide-DNA-lipid particles an enhanced in vitro transfection efficiency over that observed with classical DNA/lipid lipoplexes, and particularly confer the capacity to transfect in the presence of serum. This acquisition of serum resistance is cell type-independent, and observed with all four lipopolyamines tested and polyethylenimine. Precompacting DNA with a histone H1-derived peptide enhances cationic lipid RPR 115335-mediated gene transfer in an in vivo model of Lewis lung carcinoma. Apart from their use in peptide-DNA-lipid association, such peptides could be useful as part of chimeric gene delivery vectors presenting a DNA-binding moiety that can be easily associated with other functional domains.
IT **124050-77-7**, DOGS
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(synthetic DNA-compacting peptides derived from human sequence enhance cationic lipid-mediated gene transfer in vitro and in vivo)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 52 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:113536 CAPLUS
DN 130:173007
TI Stable particulate complexes with neutral or negative global charge of lamellar structure

IN Thierry, Alain
PA Biovector Therapeutics (S.A.), Fr.
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9906026	A1	19990211	WO 1998-EP5103	19980730
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				FR 1997-9698 A	19970730
				FR 1997-10812 A	19970829
	FR 2766705	A1	19990205	FR 1997-9698	19970730
	FR 2766705	B1	20010525		
	FR 2766706	A1	19990205	FR 1997-10812	19970829
	FR 2766706	B1	20010525		
				FR 1997-9698 A	19970730
	AU 9892608	A1	19990222	AU 1998-92608	19980730
				FR 1997-9698 A	19970730
				FR 1997-10812 A	19970829
				WO 1998-EP5103 W	19980730
	EP 1001750	A1	20000524	EP 1998-945216	19980730
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				FR 1997-9698 A	19970730
				FR 1997-10812 A	19970829
				WO 1998-EP5103 W	19980730
	US 6096335	A	20000801	US 1998-126402	19980730
				FR 1997-9698 A	19970730
				FR 1997-10812 A	19970829
	JP 2001511440	T2	20010814	JP 2000-504841	19980730
				FR 1997-9698 A	19970730
				FR 1997-10812 A	19970829
				WO 1998-EP5103 W	19980730

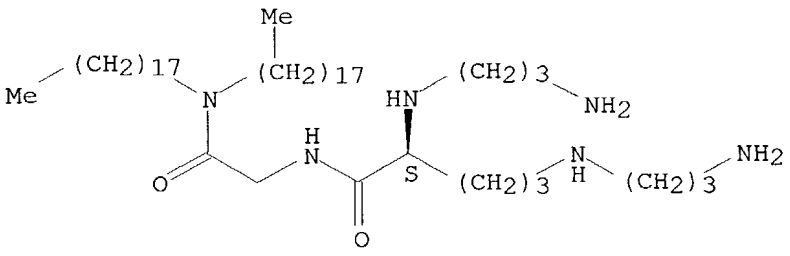
AB This invention concerns a stable, particulate complex having a global neg. or neutral charge, a spherical shape, and a lamellar, rolled and condensed particulate structure, the complex comprising a globally anionic biol. active substance and a mixture of a cationic constituent and an anionic constituent, wherein at least one of the cationic constituent and the anionic constituent is a lipid. More particularly, the mixture further comprises a neutral constituent. The invention also concerns unilamellar vesicles for preparation of these complexes as well as their preparation and utilization. Neutraplex 1D vesicles with a dioctadecylamidoglycylspermine /Cardiolipin composition were prepared

IT **124050-77-7**, Dogs
RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(stable particulate complexes with neutral or neg. global charge of lamellar structure)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI)

(CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 53 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:96383 CAPLUS
DN 130:163952
TI Preparation of lipid-nucleic acid particles by solvent extraction and direct hydration and their use in cell transfection and gene therapy
IN Zhang, Yuan-Peng; Scherrer, Peter; Hope, Michael
PA Inex Pharmaceuticals Corporation, Can.
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9905303	A1	19990204	WO 1998-CA710	19980723
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
			US 1997-72656	19970724
AU 9884289	A1	19990216	AU 1998-84289	19980723
			US 1997-72656	19970724
			WO 1998-CA710	19980723

AB This invention relates to a novel Solvent Extraction and Direct Hydration (SEDH) method for preparing lipid-nucleic acid particles which are useful for the introduction of nucleic acids (e.g., plasmid DNA, antisense mols., ribozymes, etc.) into cells. The SEDH method comprises (1) contacting the nucleic acid with a solution containing a non-cationic lipid and a cationic lipid to form a lipid-nucleic acid mixture, said solution containing 15-35% water and 65-85% organic solvent; (2) removing the water; (3) removing the organic solvent to form the a lipid-nucleic acid complex; then (4) hydrating the complex to form the lipid-nucleic acid particle. The lipid-nucleic acid particles prepared using the methods of the present invention have enhanced circulation characteristics and serum stability and, thus, they are extremely effective as nucleic acid delivery vehicles. The sizes of the

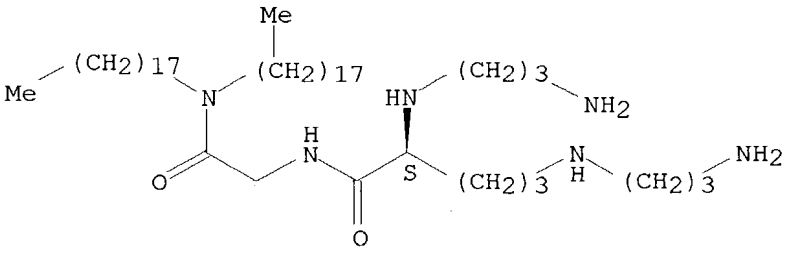
lipid-nucleic acid particles are in the range of 200-500 nm, but can be reduced to about 50-150 nm by, for example, brief sonication. The SEDH method is simple and time-efficient. The disclosed method provides high encapsulation efficiency (60-100%) with relatively low lipid:nucleic acid ratios.

IT **124050-77-7,** DOGS
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of lipid-nucleic acid particles by solvent extraction and direct
hydration and their use in cell transfection and gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 54 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:87146 CAPLUS

DN 130:277407

TI Phosphonolipids as non-viral vectors for gene therapy

AU Floch, Virginie; Le Bolc'h, Gwenaelle; Gable-Guillaume, Christine; Le Bris, Nathalie; Yaouanc, Jean-Jacques; Des Abbayes, Herve; Ferec, Claude; Clement, Jean-Claude

CS Centre de Biogenetique, ETSBO - UBO - CHU, Brest, 29275, Fr.

SO European Journal of Medicinal Chemistry (1998), 33(12), 923-934
CODEN: EJMCA5; ISSN: 0223-5234

PB Editions Scientifiques et Medicales Elsevier

DT Journal

LA English

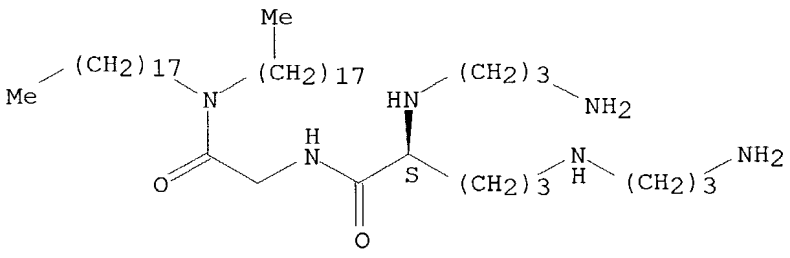
AB Several phosphonates with two fatty chains and different polar heads were synthesized and evaluated for their potential to transfer DNA into epithelial (COS-7) and hematopoietic (K562) cell lines, and compared to com. available refs. In both cases, ammonium-phosphonates were particularly efficient.

IT **124050-77-7,** Transfectam
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process); USES (Uses)
(phosphonolipid synthesis for gene transfer)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



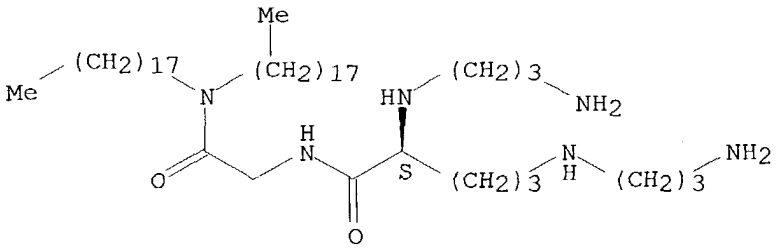
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 55 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:78463 CAPLUS
DN 130:134957
TI Gene transfer into tissues specific to embryonic stage
IN Sugatani, Takeshi; Kurokawa, Chinami; Nishioka, Yukiko; Tsukamoto, Makoto; Saito, Yasushi
PA Tanabe Seiyaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11029498	A2	19990202	JP 1997-188847	19970715
			JP 1997-188847	19970715

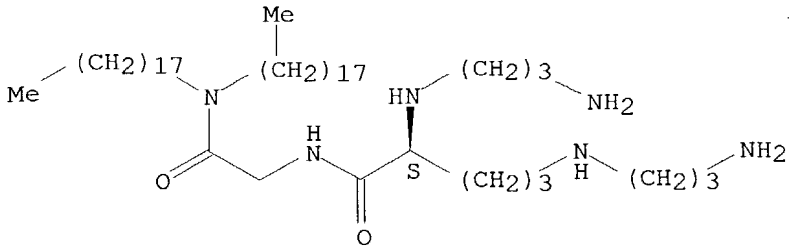
AB DNAs having genetic information are administered to maternal bodies of nonhuman mammals to be transferred into tissues specific to the embryonic stage to function only in the embryonic stage, not after the neonatal stage. The method may be applicable to gene therapy. A complex of recombinant plasmid CA-nls-LacZ with cationic lipid dioctadecylamidoglycylspermine (Transfectam) was i.v. administered to pregnant mice. The plasmid DNA was transferred into the vitelline envelope and embryo.
IT **124050-77-7DP**, Transfectam, complexes with DNA
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(gene transfer into tissues specific to embryonic stage by administration of DNA into maternal bodies)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 56 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:51154 CAPLUS
DN 130:231807
TI Efficient adventitial gene delivery to rabbit carotid artery with cationic polymer-plasmid complexes
AU Turunen, M. P.; Hiltunen, M. O.; Ruponen, M.; Virkamaki, L.; Szoka, F. C, Jr.; Urtti, A.; Yla-Herttuala, S.
CS AI Virtanen Institute, University of Kuopio, Kuopio, FIN-70211, Finland
SO Gene Therapy (1999), 6(1), 6-11
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton Press
DT Journal
LA English
AB Different lipids and cationic polymers were tested in vitro for their ability to transfect rabbit aortic smooth muscle cells and human endothelial cells with lacZ marker gene. Toxicity of the complexes was evaluated with MTT assay. Selected plasmid-polymer complexes with different charge ratios were then tested for in vivo gene transfer efficiency using adventitial gene transfer by placing a silastic gene delivery reservoir (collar) around the carotid artery. Transfection efficiency was determined by X-gal staining 3 days after the gene transfer. Based on in vitro expts., fractured polyamidoamine dendrimers and polyethylenimines (PEI) were selected for in vivo expts. Fractured dendrimers (generation 6, ± charge ratio of 3) had the highest in vivo gene transfer efficiency (4.4%). PEI with mol. size of 25 kDa (± charge ratio 4) was also effective (2.8%) in this model. PEI of 800 kDa showed a constant but modest gene transfer efficiency (1.8% ± 0.1) with all charge ratios. A low level gene transfer was also detected with naked DNA (0.5%). No signs of inflammation were seen in any of the study groups. We show here that in vitro cell culture expts. can be used to identify efficient in vivo gene transfer methods for arterial gene therapy, but the charge ratios for each complex must be optimized in vivo. It is concluded that fractured dendrimer and PEI are efficient gene delivery vehicles and can be used for arterial gene therapy via adventitial gene delivery route.
IT **124050-77-7**, DOGS
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adventitial gene delivery to carotid artery with cationic polymer-plasmid complexes)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

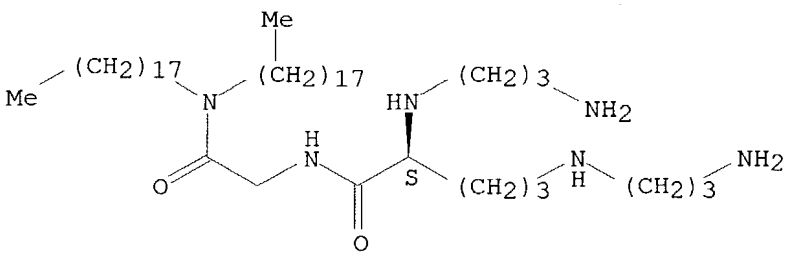
Absolute stereochemistry.



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 57 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:28134 CAPLUS
DN 130:271928
TI Interactions of polymeric and liposomal gene delivery systems with extracellular glycosaminoglycans: physicochemical and transfection studies
AU Ruponen, Marika; Yla-Herttuala, Seppo; Urtti, Arto
CS Department of Pharmaceutics, University of Kuopio, Kuopio, FIN-70211, Finland
SO Biochimica et Biophysica Acta (1999), 1415(2), 331-341
CODEN: BBACAQ; ISSN: 0006-3002
PB Elsevier Science B.V.
DT Journal
LA English
AB Complexes of DNA with cationic lipids and cationic polymers are frequently used for gene transfer. Extracellular interactions of the complexes with anionic glycosaminoglycans (GAGs) may interfere with gene transfer. Interactions of GAGs with the carrier-DNA complexes were studied using tests for DNA relaxation (ethidium bromide intercalation), DNA release (electrophoresis), and transfection (pCMVβGal transfer into RAA smooth muscle cells). Several cationic lipid formulations (DOTAP, DOTAP/Chol, DOTAP/DOPE, DOTMA/DOPE, DOGS) and cationic polymers (fractured dendrimer, polyethylene imines 25 kDa and 800 kDa, polylysines 20 kDa and 200 kDa) were tested. Polycations condensed DNA more effectively than the monovalent lipids. Hyaluronic acid did not release or relax DNA in any complex, but it inhibited the transfection by some polyvalent systems (PEI, dendrimers, DOGS). Gene transfer by the other carriers was not affected by hyaluronic acid. Sulfated GAGs (heparan sulfate, chondroitin sulfates B and C) completely blocked transfection, except in the case of the liposomes with DOPE. Sulfated GAGs relaxed and released DNA from some complexes, but these events were not prerequisites for the inhibition of transfection. In conclusion, polyvalent delivery systems with endosomal buffering capacity (DOGS, PEI, dendrimer) were most sensitive to the inhibitory effects of GAGs on gene transfer, while fusogenic liposomes (with DOPE) were the most resistant systems.
IT **124050-77-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(interactions of polymeric and liposomal gene delivery systems with extracellular glycosaminoglycans in physicochem. and transfection studies)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 58 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:789045 CAPLUS
DN 130:24103
TI An influenza enveloped DNA vaccine
IN Cusi, Maria Grazia; Gluck, Reinhard; Walti, Ernst
PA Schweiz. Serum- & Impfinstitut Bern, Switz.
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9852603	A2	19981126	WO 1998-EP3050	19980522
	WO 9852603	A3	19990514		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				EP 1997-108390 A	19970523
	AU 9879153	A1	19981211	AU 1998-79153	19980522
				EP 1997-108390 A	19970523
				WO 1998-EP3050 W	19980522
	EP 988052	A2	20000329	EP 1998-929369	19980522
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				EP 1997-108390 A	19970523
				WO 1998-EP3050 W	19980522
	US 2003113347	A1	20030619	US 2002-269501	20021010
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				WO 1992-EP1014 A	19920508
				US 1993-965246 A2	19930303
				US 1994-225740 A2	19940411
				EP 1997-108390 A	19970523
				WO 1998-EP3050 A	19980522
				US 1999-264551 B1	19990308

PATENT FAMILY INFORMATION:
FAN 1993:66836

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9219267	A1	19921112	WO 1992-EP1014	19920508
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
	CA 2086831	AA	19921109	CA 1992-2086831	19920508
	CA 2086831	C	19990316		
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
	AU 9217456	A1	19921221	AU 1992-17456	19920508
	AU 655823	B2	19950112		
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				WO 1992-EP1014 A	19920508
	EP 538437	A1	19930428	EP 1992-910072	19920508
	EP 538437	B1	19990804		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				WO 1992-EP1014 W	19920508
	JP 06500128	T2	19940106	JP 1992-509497	19920508
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				WO 1992-EP1014 W	19920508
	AT 182791	E	19990815	AT 1992-910072	19920508
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
	ES 2135406	T3	19991101	ES 1992-910072	19920508
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
	GR 3031520	T3	20000131	GR 1999-402616	19991013
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				EP 1992-910072 A	19920508
				WO 1992-EP1014 W	19920508
	US 2003113347	A1	20030619	US 2002-269501	20021010
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				WO 1992-EP1014 A	19920508
				US 1993-965246 A2	19930303
				US 1994-225740 A2	19940411
				EP 1997-108390 A	19970523
				WO 1998-EP3050 A	19980522
				US 1999-264551 B1	19990308

FAN 1999:175584

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5879685	A	19990309	US 1994-225740	19940411
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				US 1993-965246 A2	19930303
	US 5565203	A	19961015	US 1993-965246	19930303
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
	US 2003113347	A1	20030619	US 2002-269501	20021010
				EP 1991-107527 A	19910508
				EP 1991-107647 A	19910510
				WO 1992-EP1014 A	19920508

US 1993-965246 A219930303
US 1994-225740 A219940411
EP 1997-108390 A 19970523
WO 1998-EP3050 A 19980522
US 1999-264551 B119990308

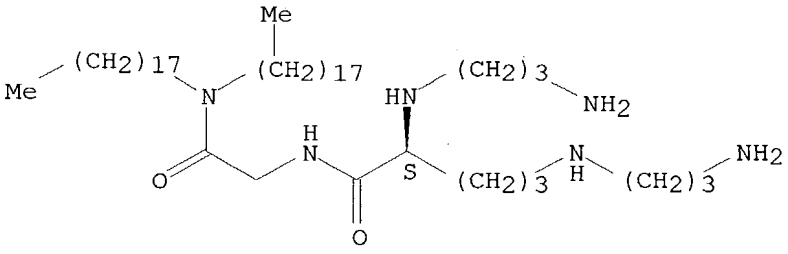
AB Described are virosomes comprising cationic lipids, biol. active influenza hemagglutinin protein or biol. active derivs. thereof and nucleic acids encoding antigens from pathogenic sources in their insides, preferably antigens from mumps virus wherein said antigens are derived from conserved external and internal proteins of said virus. Provided are virosomes which may advantageously be formulated as vaccines capable of inducing strong neutralizing antibody and cytotoxic T cell responses as well as protection to pathogenic sources such as a mumps virus. Furthermore, vaccines comprising recombinant DNA derived from DNA encoding conserved external and internal proteins from mumps virus are described. Mol. cloning of hemagglutinin gene, F gene, and nucleocapsid gene of mumps virus, N gene of respiratory syncytial virus, and S or Pre-S1 or Pre-S2 or S ORF gene of hepatitis B virus was described. Also described were preparation of DOTAP-PC virosomes and DOTAP-PC-PE virosomes, incorporation of plasmids expressing mumps genes into DOTAP virosomes, humoral and cellular immune response to viral mumps-antigens induced by genetic immunization.

IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(virosomes comprising cationic lipids, influenza hemagglutinin, and antigen gene of pathogen as DNA vaccine for infectious diseases)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 59 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:706074 CAPLUS
DN 129:321203
TI Hair follicle DNA delivery system
IN Weiner, Norman D.; Roessler, Blake; Niemiec, Susan
PA The Regents of the University of Michigan, USA
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9846208	A1	19981022	WO 1998-US7645	19980414

W: CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE

US 1997-843866 A 19970417

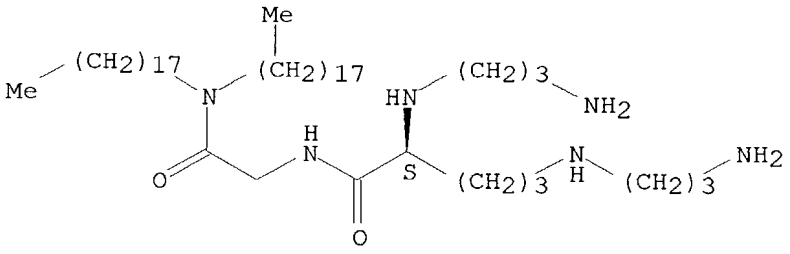
AB A novel method and delivery system for delivering nucleic acids to a mammalian cell in vivo by topical application of the nucleic acid and the delivery system has been developed. The method and delivery system utilize a liposomal composition having nonionic lipids and a cationic lipid. The method and delivery system are particularly well suited for gene therapy of dermatol. disorders including neoplastic disease and alopecia by topical administration. Thus, liposomes contained 44 μg of a mixture of glyceryl dilaurate and cholesterol and PEG stearyl ether and 6 μg 1,2-dioleoyloxy-3-(trimethylammonio)propane. The liposomal formulations mediated transfection of plasmid DNA into 293 cell monolayers.

IT **124050-77-7**, Dogs
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hair follicle DNA delivery system)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 60 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:621324 CAPLUS

DN 129:240848

TI Increasing the efficiency of uptake of transforming DNA complexes with polycations using peptides

IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.; Ciccarone, Valentina C.; Evans, Krista L.; Schifferli, Kevin P.; Gebeyehu, Guililat

PA Life Technologies, Inc., USA

SO PCT Int. Appl., 105 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9840502	A1	19980917	WO 1998-US5232	19980316

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,

GA, GN, ML, MR, NE, SN, TD, TG

			US 1997-818200 A	19970314
US 6051429	A	20000418	US 1997-818200	19970314
			US 1995-477354 B	219950607
			US 1996-658130 A	219960604
AU 9865622	A1	19980929	AU 1998-65622	19980316
			US 1997-818200 A	19970314
			WO 1998-US5232 W	19980316
EP 1007699	A1	20000614	EP 1998-911737	19980316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			US 1997-818200 A	19970314
			WO 1998-US5232 W	19980316
JP 2001517939	T2	20011009	JP 1998-539899	19980316
			US 1997-818200 A	19970314
			WO 1998-US5232 W	19980316

PATENT FAMILY INFORMATION:

FAN 1997:130043

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9640961	A1	19961219	WO 1996-US8723	19960604
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1995-477354 A	19950607
	AU 9659792	A1	19961230	AU 1996-59792	19960604
				US 1995-477354 A	19950607
				WO 1996-US8723 W	19960604
	EP 874910	A1	19981104	EP 1996-917118	19960604
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
				US 1995-477354 A	19950607
				WO 1996-US8723 W	19960604
	JP 11506935	T2	19990622	JP 1996-501227	19960604
				US 1995-477354 A	19950607
				WO 1996-US8723 W	19960604

FAN 1998:219310

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5736392	A	19980407	US 1996-658130	19960604
				US 1995-477354 B	219950607
	US 6051429	A	20000418	US 1997-818200	19970314
				US 1995-477354 B	219950607
				US 1996-658130 A	219960604
	US 2003144230	A1	20030731	US 2002-200879	20020723
				US 1995-477354 B	219950607
				US 1996-658130 A	219960604
				US 1997-818200 A	219970314
				US 1998-39780 A	119980316
				US 2001-911569 A	120010723

FAN 2000:254039

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6051429	A	20000418	US 1997-818200	19970314
				US 1995-477354 B	219950607
				US 1996-658130 A	219960604
	US 5736392	A	19980407	US 1996-658130	19960604

				US 1995-477354 B219950607
	WO 9840502	A1	19980917	WO 1998-US5232 19980316
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
				US 1997-818200 A 19970314
	AU 9865622	A1	19980929	AU 1998-65622 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	EP 1007699	A1	20000614	EP 1998-911737 19980316
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	JP 2001517939	T2	20011009	JP 1998-539899 19980316
				US 1997-818200 A 19970314
				WO 1998-US5232 W 19980316
	US 6376248	B1	20020423	US 1998-39780 19980316
				US 1997-818200 A219970314
	US 2003144230	A1	20030731	US 2002-200879 20020723
				US 1995-477354 B219950607
				US 1996-658130 A219960604
				US 1997-818200 A219970314
				US 1998-39780 A119980316
				US 2001-911569 A120010723

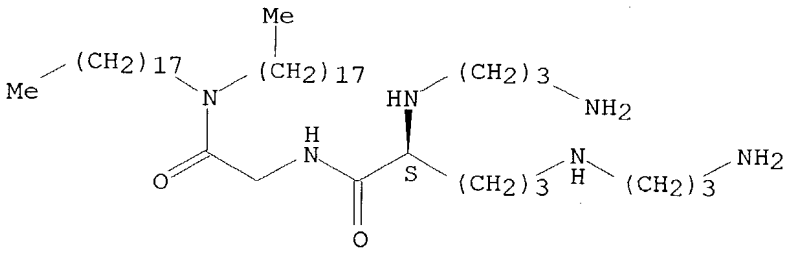
FAN 2002:309818

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	US 6376248	B1	20020423	US 1998-39780 19980316
				US 1997-818200 A219970314
	US 6051429	A	20000418	US 1997-818200 19970314
				US 1995-477354 B219950607
				US 1996-658130 A219960604
	US 2003069173	A1	20030410	US 2001-911569 20010723
				US 1998-39780 A119980316
	US 2003144230	A1	20030731	US 2002-200879 20020723
				US 1995-477354 B219950607
				US 1996-658130 A219960604
				US 1997-818200 A219970314
				US 1998-39780 A119980316
				US 2001-911569 A120010723

AB A method of increasing the efficiency of transformation of eukaryotic cells using complexes of nucleic acids with polycations is decribed. The method uses peptide conjugates with nucleic acid-binding moieties, cationic lipids and dendrimers to complex the DNA. The peptides may be synthetic or derived from a cellular protein and may be further derivatized, e.g. by selective deprotection. The peptide may also be covalently linked to the transfection agent (lipid, cationic lipid or dendrimer). Inclusion of peptides or modified-peptides in transfection compns. or covalent attachment of peptides to transfection agents increases the efficiency of transfection. Methods for the preparation of transfection compns. and methods of using these transfection compns. as intracellular delivery agents and extracellular targeting agents are also disclosed.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(transformation using, increasing efficiency of; increasing efficiency of uptake of transforming DNA complexes with polycations using peptides)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

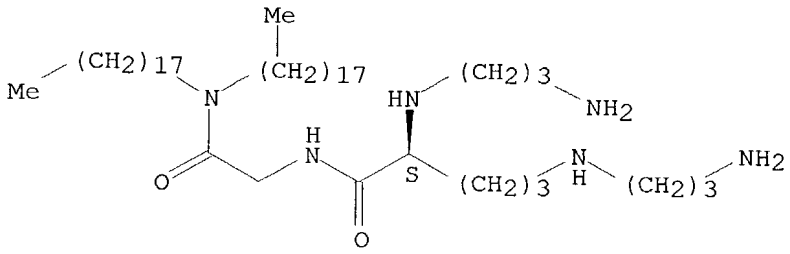


RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 61 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:607505 CAPLUS
DN 129:341558
TI Enhanced in vitro and in vivo gene delivery using cationic agent complexed retrovirus vectors
AU Themis, M.; Forbes, S. J.; Chan, L.; Cooper, R. G.; Etheridge, C. J.; Miller, A. D.; Hodgson, H. J. F.; Coutelle, C.
CS Division of Biomedical Sciences, Imperial College School of Medicine, London, W2 1PG, UK
SO Gene Therapy (1998), 5(9), 1180-1186
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton Press
DT Journal
LA English
AB Retroviruses are, at present, the most efficient integrative vectors available for gene delivery. These viruses are still limited by relatively low titers. Although several protocols exist to improve virus titer most of them are time-consuming and unable to provide sufficient virus for in vivo applications. Virus titer can be enhanced by polybrene and other cationic agents. By investigating a broad range of cationic agents for their ability to enhance virus infectivity the authors found that both ecotropic and amphotropic retrovirus infection could be increased. The lipopolyamine dioctadecylamidoglycylspermine (DOGS) gave ≤ 1 order of magnitude enhancement above polybrene-mediated infection without cytotoxicity. To increase virus infectivity further the authors combined the enhancing effect of DOGS on virus infectivity with concentration of virus particles by ultrafiltration to reach titers of 1 + 109 IU/mL. The in vivo transduction of regenerating rat liver, by an amphotropic retrovirus was increased approx. 5-fold by the addition of DOGS compared with virus alone. There was no animal toxicity observed following the administration of DOGS. The improved transduction efficiency seen both in vitro and in vivo following the co-administration of DOGS/virus complexes may be useful for future gene therapy applications.

IT **124050-77-7**, DOGS
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(enhanced gene delivery using cationic agent complexed retrovirus vectors)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

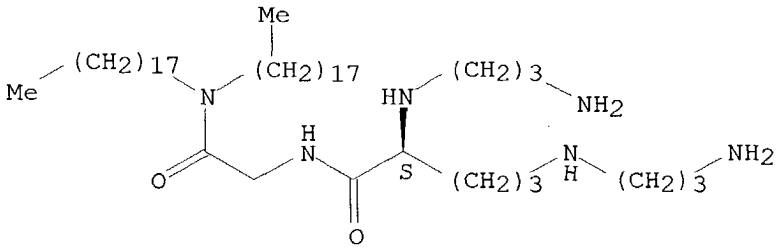


RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 62 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:602003 CAPLUS
DN 129:310560
TI Anti-proliferative effects of unmodified antisense oligodeoxynucleotides targeted against c-raf mRNA: use of poly (lysine/serine) copolymers or cationic lipopolyamines
AU Aoki, Y.; Kawa, S.; Karasawa, Y.; Horiuchi, A.; Kiyosawa, K.
CS The Second Department of Internal Medicine, Shinshu University School of Medicine, Matsumoto, 390, Japan
SO Clinical and Experimental Pharmacology and Physiology (1998), 25(9), 702-705
CODEN: CEXPB9; ISSN: 0305-1870
PB Blackwell Science Asia Pty Ltd.
DT Journal
LA English
AB It is now known that nuclease-resistant phosphorothioate antisense oligodeoxynucleotides (ODN) have some actions that are unrelated to antisense mechanisms. In the present study we assessed the anti-proliferative effects of phosphorothioate (PS) and phosphodiester (PO; unmodified) antisense ODN targeted against c-raf mRNA on pancreatic cancer cells in vitro, using poly(lysine/serine) copolymers conjugated with polyethylene glycol (PLSP) or cationic lipopolyamines (Transfectam) as carriers. The anti-proliferative effect of the PO antisense ODN was significantly ($P<0.05$) greater than that of the PS ODN, either complexed with PLSP (2 μmol/L ODN) or the Transfectam (0.5 μmol/L ODN). However, the effect of the PS or PO antisense ODN was not dependent on the antisense sequence. The c-raf mRNA levels, assessed by reverse transcription-polymerase chain reaction, were obviously reduced by both PO and PS antisense ODN compared with mismatched ODN when complexed with the Transfectam (1 μmol/L ODN). Although the anti-proliferative effects were mainly unrelated to antisense mechanisms, unmodified antisense ODN complexed with some carriers could be used as anti-tumor agents considering that synthetic carriers can be modified to improve functions, such as delivery.

IT **124050-77-7**, Transfectam
RL: BPR (Biological process); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); PROC (Process); USES (Uses)
(anti-proliferative effects of unmodified antisense oligodeoxynucleotides targeted against c-raf mRNA: use of poly(lysine/serine) copolymers or cationic lipopolyamines)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 63 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:595371 CAPLUS
DN 129:311661
TI Limited use of cationic liposomes as tools to enhance the antiherpetic activities of oligonucleotides in Vero cells infected with herpes simplex virus type 1
AU Shoji, Yoko; Norimatsu, Miki; Shimada, Jingoro; Mizushima, Yutaka
CS Institute of Medical Science, and Department of Microbiology, St. Marianna University School of Medicine, Kawasaki, Japan
SO Antisense & Nucleic Acid Drug Development (1998), 8(4), 255-263
CODEN: ANADF5; ISSN: 1087-2906
PB Mary Ann Liebert, Inc.
DT Journal
LA English
AB We used com. available cationic liposomes, lipofectin, DOTAP, and transfectam, to enhance the antiherpetic activities of phosphodiester oligonucleotides (D-oligos) or phosphorothioate oligonucleotides (S-oligos) targeted against immediate-early pre-mRNA4/5 of herpes simplex virus type 1 (HSV-1). With a 5-fold excess of S-oligos/D-oligos, formation of complexes with some of the S-oligos/D-oligos and the cationic liposomes could be visualized on agarose gel. A >5-fold excess of cationic liposomes enhanced the antiherpetic activities of D-oligos, whereas there was not enhancement of the antiherpetic activities of S-oligos. As nuclear localization of D-oligos in the presence of cationic liposomes was not clear, we could not clarify the relation between antiherpetic activities of D-oligos and nuclear distribution of oligos. Subcellular distribution of S-oligos in the presence of lipofectin or DOTAP showed nuclear localization by confocal laser scanning microscopy. Transfectam had no effect on the nuclear distribution of S-oligos. Cationic liposomes would not be appropriate carriers to enhance the antiherpetic activities of S-oligos. Also, distribution of S-oligos into the nucleus does not necessarily enhance their biol. activity. Questions

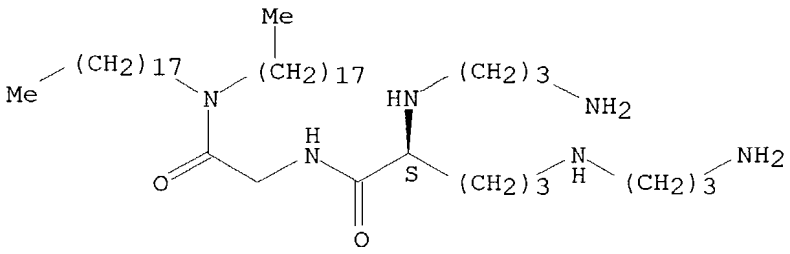
remain about the effectiveness of cationic liposomes in the enhancement of the antivirus activity of S-oligos.

IT **124050-77-7**, Transfectam
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in liposome; limited use of cationic liposomes to enhance antiherpetic activities of oligonucleotides in Vero cells infected with herpes simplex virus type 1)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 64 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:548562 CAPLUS
DN 129:193718
TI Formulation of stabilized cationic transfection agents complexed with nucleic acid particles
IN Crouzet, Joel; Pitard, Bruno
PA Rhone-Poulenc Rorer S.A., Fr.
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9834648	A1	19980813	WO 1998-FR222	19980206
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				FR 1997-1467 A	19970210
	FR 2759298	A1	19980814	FR 1997-1467	19970210
	FR 2759298	B1	19990409		
	AU 9862987	A1	19980826	AU 1998-62987	19980206
	AU 737720	B2	20010830		
				FR 1997-1467 A	19970210
				WO 1998-FR222 W	19980206
	BR 9807563	A	20000201	BR 1998-7563	19980206
				FR 1997-1467 A	19970210

			WO 1998-FR222 W 19980206
EP 1007097	A1	20000614	EP 1998-906986 19980206
EP 1007097	B1	20011017	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI			
			FR 1997-1467 A 19970210
			WO 1998-FR222 W 19980206
JP 2001511171	T2	20010807	JP 1998-533881 19980206
			FR 1997-1467 A 19970210
			WO 1998-FR222 W 19980206
AT 206932	E	20011115	AT 1998-906986 19980206
			FR 1997-1467 A 19970210
			WO 1998-FR222 W 19980206
ES 2166146	T3	20020401	ES 1998-906986 19980206
			FR 1997-1467 A 19970210
PT 1007097	T	20020429	PT 1998-98906986 19980206
			FR 1997-1467 A 19970210
SK 282685	B6	20021106	SK 1999-1082 19980206
			FR 1997-1467 A 19970210
			WO 1998-FR222 W 19980206
ZA 9801034	A	19980811	ZA 1998-1034 19980209
			FR 1997-1467 A 19970210
NO 9903825	A	19990809	NO 1999-3825 19990809
			FR 1997-1467 A 19970210
			WO 1998-FR222 W 19980206
GR 3036919	T3	20020131	GR 2001-401473 20011018
			FR 1997-1467 A 19970210
			WO 1998-FR222 W 19980206

OS MARPAT 129:193718

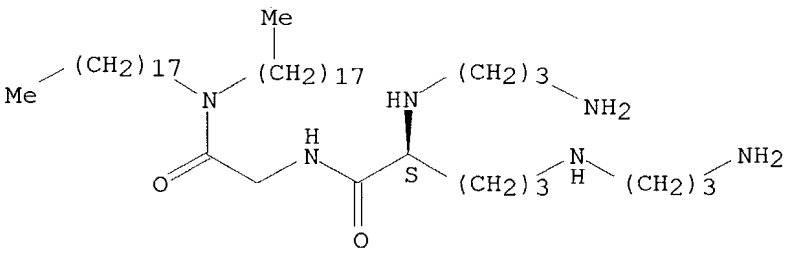
AB The invention concerns a composition containing stabilized particles of cationic transfection agent(s)/nucleic acid complexes characterized in that it includes besides said transfection agent and nucleic acid at least a non-ionic surfactant in sufficient amount for preventing the aggregation of the particles in course of time. In a preferred embodiment, the surfactant is a polyoxyalkylene or a derivative thereof.

IT **124050-77-7**, Dogs
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(Dioctadecylamidoglycyl spermine; formulation of stabilized cationic transfection agents complexed with nucleic acid particles)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

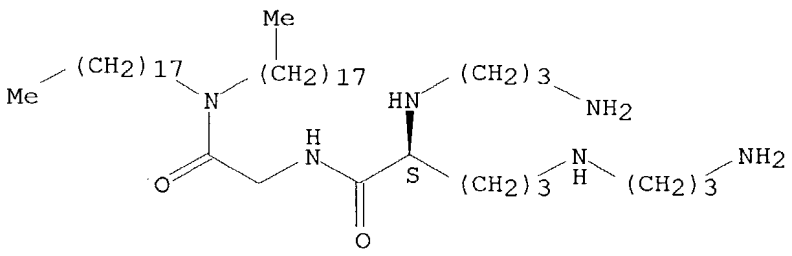
Absolute stereochemistry.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 65 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:400585 CAPLUS
DN 129:140546
TI Cationic liposomes coated with polyethylene glycol as carriers for oligonucleotides
AU Meyer, Olivier; Kirpotin, Dmitri; Hong, Keelung; Sternberg, Brigitte; Park, John W.; Woodle, Martin C.; Papahadjopoulos, Demetrios
CS Department of Cellular and Molecular Pharmacology, Division of Hematology/Oncology, University of California San Francisco, San Francisco, CA, 94143, USA
SO Journal of Biological Chemistry (1998), 273(25), 15621-15627
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB Modification of liposome surface with polyethylene glycol was used to improve oligodeoxyribonucleotide (ODN) loading, stability of the resulting complexes, and specificity of cellular delivery of ODN by cationic liposomes. Liposomes composed of a cationic lipid (DOTAP, DOGS, DDAB), a neutral lipid (DOPE), and a phospholipid derivative of polyethylene glycol (PEG-PE) formed a complex with 18-mer phosphorothioate up to ODN/lipid molar ratio of 0.25. The complexes showed intact vesicular structures similar to original liposomes and their size (100-130 nm) was unchanged after several weeks of storage, whereas complexes lacking PEG-PE showed progressive aggregation and/or precipitation After exposure to human plasma, PEG-modified cationic liposomes retained over 60% of the originally bound ODN. PEG-coated complexes resulted in 4-13-fold enhancement of the ODN uptake by human breast cancer cells in serum-supplemented growth medium, relative to free ODN. Complexes containing conjugated anti-HER2 F(ab') fragments at the distal termini of PEG chains efficiently delivered ODN primarily into the cytoplasm and nuclei of HER2 overexpressing cancer cells and greatly enhanced the biol. activity of antisense ODN. The development of PEG-modified cationic liposomes may lead to improved ODN potency in vivo.
IT **124050-77-7**, Dogs
RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(cationic liposomes coated with polyethylene glycol as carriers for oligonucleotides)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

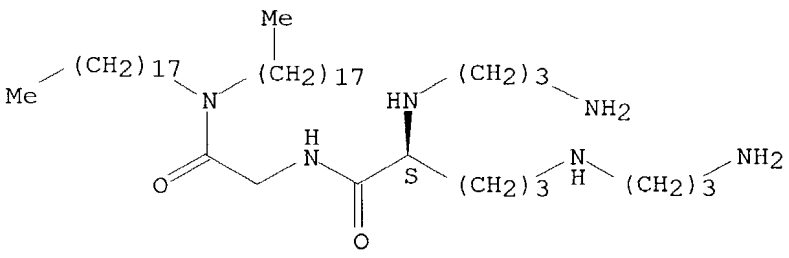
Absolute stereochemistry.



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 66 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:395896 CAPLUS
DN 129:140540
TI Influence of the DNA complexation medium on the transfection efficiency of lipospermine/DNA particles
AU Kichler, A.; Zauner, W.; Ogris, M.; Wagner, E.
CS Institute of Biochemistry, University of Vienna, Austria
SO Gene Therapy (1998), 5(6), 855-860
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton Press
DT Journal
LA English
AB Dioctadecylamidoglycylspermine (DOGS, Transfectam) is a cationic lipid able to interact with DNA to form complexes that mediate efficient gene transfer into various eukaryotic cells. The state of condensation of the plasmid changes with the medium composition We therefore investigated to what extent the DNA condensation buffer influences the transfection efficiency of Transfectam/DNA particles. Our results show that in a variety of cell lines, a greater than 100-fold difference in luciferase gene expression is observed with Transfectam/DNA complexes at a +/- charge ratio of 0.75 depending on the conditions of complex formation. The best transfection conditions consisted of particles formed in RPMI medium, NaHCO3/Na2HPO4 or sodium citrate solns. Mixing in a 150 mM sodium chloride solution (as recommended) resulted in lower gene expression. When the helper lipid 1,2-dioleoyl-sn-glycero-3-phosphoethanolamine (DOPE) was present in the DNA/cationic lipid formulation, the increase in reporter activity was also observed, although to a lower extent. Thus, choosing the optimal conditions for formulating DNA/lipid complexes considerably reduces the amount of lipid and DNA needed to obtain maximum gene transfer.
IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(influence of DNA complexation medium on transfection efficiency of lipospermine/DNA particles)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 67 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:388630 CAPLUS
DN 129:37207

TI Transfecting composition usable in gene therapy containing viral vector and transfecting agent such as cationic polymers or lipofectants

IN Aubailly, Nathalie; Benoit, Patrick; Branellec, Didier; Le Roux, Aude; Mahfoudi, Abderrahim; Ratet, Nathalie

PA Rhone-Poulenc Rorer S.A., Fr.; Aubailly, Nathalie; Benoit, Patrick; Branellec, Didier; Le Roux, Aude; Mahfoudi, Abderrahim; Ratet, Nathalie

SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

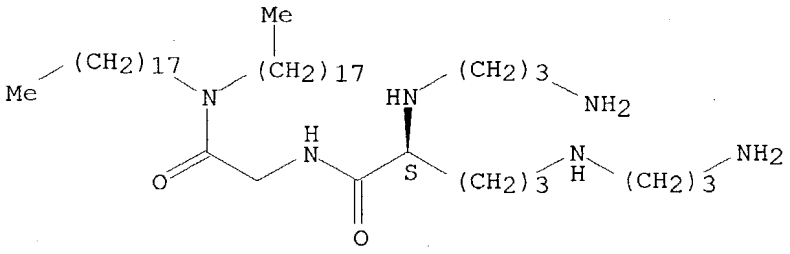
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823765	A1	19980604	WO 1997-FR2157	19971128
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				FR 1996-14693 A	19961129
	FR 2756491	A1	19980605	FR 1996-14693	19961129
	FR 2756491	B1	19990108		
	ZA 9701070	A	19970825	ZA 1997-1070	19970210
				ZA 1996-1109 A	19960212
				FR 1996-14693 A	19961129
	AU 9874010	A1	19980622	AU 1998-74010	19971128
	AU 737846	B2	20010830		
				FR 1996-14693 A	19961129
				WO 1997-FR2157 W	19971128
	EP 948636	A1	19991013	EP 1997-948959	19971128
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI				
				FR 1996-14693 A	19961129
				WO 1997-FR2157 W	19971128
	BR 9713434	A	20000201	BR 1997-13434	19971128
				FR 1996-14693 A	19961129
				WO 1997-FR2157 W	19971128
	JP 2001514485	T2	20010911	JP 1998-524378	19971128
				FR 1996-14693 A	19961129
				WO 1997-FR2157 W	19971128
	NO 9902577	A	19990728	NO 1999-2577	19990528
				FR 1996-14693 A	19961129
				WO 1997-FR2157 W	19971128
	KR 2000057307	A	20000915	KR 1999-704738	19990528
				FR 1996-14693 A	19961129

AB The invention concerns a transfecting composition usable in gene therapy characterized in that it combines one or several non-coated recombinant viruses and comprising in their genome at least an exogenous nucleic acid and at least one non-viral and non-plasmid transfecting agent. Use of lipofectants to improve transfection efficiency and minimize immune reaction to adenoviral vector transfection of vascular smooth muscle cells was demonstrated.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(transfecting composition usable in gene therapy containing viral vector and transfecting agent such as cationic polymers or lipofectants)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



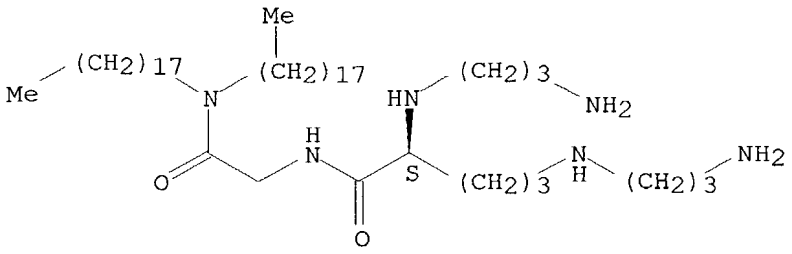
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 68 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:351793 CAPLUS
DN 129:36461
TI Complexes of adenovirus with cationic molecules for gene therapy
IN Welsh, Michael J.; Fasbender, Allen J.
PA University of Iowa Research Foundation, USA
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9822144	A2	19980528	WO 1997-US21496	19971120
	WO 9822144	A3	19980709		
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1996-755035	19961122
	US 5962429	A	19991005	US 1996-755035	19961122
	AU 9853615	A1	19980610	AU 1998-53615	19971120
				US 1996-755035	19961122
				WO 1997-US21496	19971120

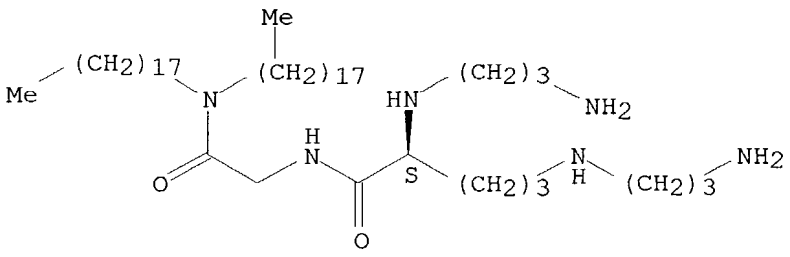
AB Noncovalent complexes of cationic mols. and adenoviral vectors containing a transgene exhibit increased efficiency of gene transfer to a target cell relative to adenoviral vectors alone. The cationic mol. may be a polymer (e.g. poly-L-lysine, PEI, DEAE-dextran, histone fraction V-S, cationic dendrimer) or a cationic lipid such as N-[(N,N-dimethylamino)ethane]carbamoylcholesterol or N4-spermine cholesterol carbamate. The cystic fibrosis transmembrane conductance regulator (CFTR) may be delivered to a cystic fibrosis patient by applying to the nasal epithelium a complex of poly-L-lysine and an adenoviral vector containing a transgene encoding a CFTR protein.
IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes of adenovirus with cationic mols. for gene therapy)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 69 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:349188 CAPLUS
DN 129:32388
TI Reversed-phase high performance liquid chromatographic analysis of cationic lipid-based gene transfer agents
AU Chang, Chau-Dung; Harris, David J.
CS Chemistry Department, Genzyme Corporation, Cambridge, MA, 02139, USA
SO Journal of Liquid Chromatography & Related Technologies (1998), 21(8), 1119-1136
CODEN: JLCTFC; ISSN: 1082-6076
PB Marcel Dekker, Inc.
DT Journal
LA English
AB Cationic lipid-mediated gene transfer represents a promising approach for the treatment of a number of diseases. Since the successful introduction of DOTMA:DOPE (Lipofectin), a variety of cationic lipids have been developed for use in gene transfer. Some of the more active cationic lipid formulations, including GL-67:DOPE, DC-chol:DOPE, DMRIE:DOPE and DOTAP, have been used in human clin. trials. It is of critical importance to develop robust anal. methods for the determination of the chemical purity of these formulations. We report here efficient, sensitive, and reproducible reversed-phase HPLC methods for use in determining the chemical purity of cationic lipid formulations. GL-53:DOPE, GL-67:DOPE, DMRIE:DOPE, DC-chol:DOPE, GAP-DLRIE:DOPE, DOTMA:DOPE (Lipofectin), DDAB:DOPE (Lipofectace), DOSPA:DOPE (Lipofectamine), DOGS (Transfectam), and DOTAP were analyzed by HPLC on C8 or C18 bonded phase columns with aqueous/mixed organic mobile phases containing trifluoroacetic acid and with ELSD detection in the gradient elution mode. Baseline resolution of the components of the GL-53:DOPE formulation was achieved by optimization of the solvent system and gradient profile. Capacity factors (k') of the cationic lipids were greatly affected by the end-capping chemical of the C18 bonded phases. The calibration curves for GL-53, DC-chol, DMRIE, and DOPE were determined in the range of 1.6-200.0 μg. The detection limits for these compds. were determined to be 0.4-1.6 μg.
IT **124050-77-7**
RL: ANT (Analyte); ANST (Analytical study)
(anal. of cationic lipid-based gene transfer agents by reversed-phase HPLC using light scattering detection)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 70 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:268526 CAPLUS
DN 128:296099
TI Chitosan compositions for transferring therapeutic agents into host cells
IN Kolbe, Hanno
PA Transgene S.A., Fr.; Kolbe, Hanno
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9817693	A1	19980430	WO 1997-FR1897	19971023
	W: AU, CA, JP, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				FR 1996-12894 A	19961023
				FR 1997-2296 A	19970226
	FR 2754823	A1	19980424	FR 1996-12894	19961023
	FR 2754824	A1	19980424	FR 1997-2296	19970226
	FR 2754824	B1	19990305		
				FR 1996-12894 A	19961023
	AU 9749505	A1	19980515	AU 1997-49505	19971023
	AU 725723	B2	20001019		
				FR 1996-12894 A	19961023
				FR 1997-2296 A	19970226
				WO 1997-FR1897 W	19971023
	EP 934342	A1	19990811	EP 1997-912239	19971023
	EP 934342	B1	20020102		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				FR 1996-12894 A	19961023
				FR 1997-2296 A	19970226
				WO 1997-FR1897 W	19971023
	JP 2001502736	T2	20010227	JP 1998-519049	19971023
				FR 1996-12894 A	19961023
				FR 1997-2296 A	19970226
				WO 1997-FR1897 W	19971023
	AT 211489	E	20020115	AT 1997-912239	19971023
				FR 1996-12894 A	19961023
				FR 1997-2296 A	19970226
				WO 1997-FR1897 W	19971023
	PT 934342	T	20020628	PT 1997-97912239	19971023
				FR 1996-12894 A	19961023

				FR 1997-2296	A 19970226
	ES 2170377	T3	20020801	ES 1997-912239	19971023
				FR 1996-12894	A 19961023
				FR 1997-2296	A 19970226

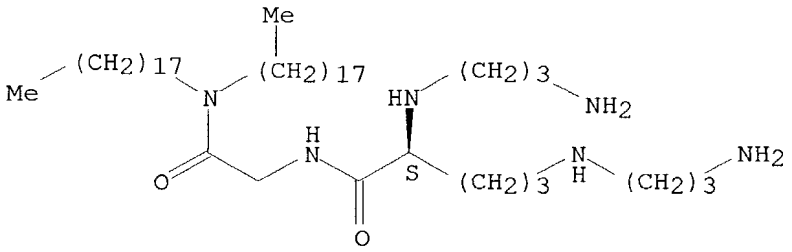
AB The title compns., especially useful in transferring nucleic acids, contain pure chitosan (d.p. 5-300) and therapeutic agents. In tests buffered at pH 7.5, chitosan with mol. weight <5000 and 5000-10,000 was shown to complex plasmidic DNA in ratios of 1:2 and 1:3, resp. Hemocompatibility was confirmed, and transfection of pulmonary cells with DNA complexes is exemplified.

IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lipids modifying the transfection activity of chitosan complexes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 71 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:239300 CAPLUS
DN 128:279543
TI Phase transitions and preparation of nucleic acid-containing liposomes cationic lipid liposomes for transformation of animal cells
IN Boukhnikachvili, Tsiala; Vacus, Joel
PA Rhone-Poulenc Rorer S.A., Fr.; Boukhnikachvili, Tsiala; Vacus, Joel
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9815639	A1	19980416	WO 1997-FR1747	19971003
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				FR 1996-12259	A 19961008
	FR 2754272	A1	19980410	FR 1996-12259	19961008
	FR 2754272	B1	19981113		

AU 9745591	A1	19980505	AU 1997-45591	19971003
AU 723371	B2	20000824		
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
BR 9712210	A	19990831	BR 1997-12210	19971003
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
EP 948638	A1	19991013	EP 1997-943929	19971003
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI				
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
JP 2001501641	T2	20010206	JP 1998-517234	19971003
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
ZA 9709031	A	19980423	ZA 1997-9031	19971008
			FR 1996-12259 A	19961008
MX 9902652	A	20000430	MX 1999-2652	19990319
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
NO 9901383	A	19990322	NO 1999-1383	19990322
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
US 6156338	A	20001205	US 1999-269515	19990402
			FR 1996-12259 A	19961008
			WO 1997-FR1747 W	19971003
KR 2000048958	A	20000725	KR 1999-703006	19990407
			FR 1996-12259 A	19961008

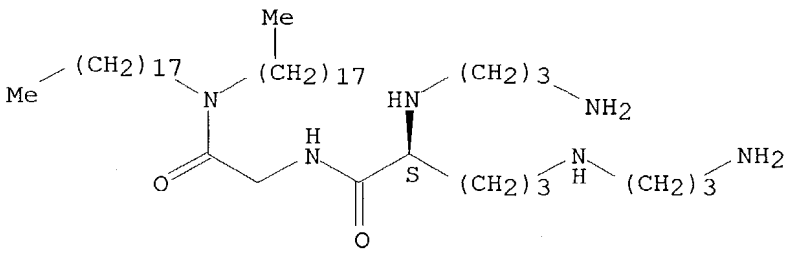
AB A method of preparing cationic lipid-based liposomes for use in transformation that leads to the formation of a uniform population of micelles uses a heating step. Cationic lipid phase diagrams were established and the transition temps. at which they form micelles under a number of different conditions were determined Heating a solution of cationic lipids to just beyond the transition temperature leads to the formation of a uniform population of micelles. Optimization expts. in which a number of variables, include pH and ionic conditions and the age of the micelle suspension on the efficiency of transformation are reported.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(micelles of; phase transitions and preparation of nucleic acid-containing liposomes cationic lipid liposomes for transformation of animal cells)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 72 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:184001 CAPLUS
DN 128:227057
TI Isolation of endotoxin-free plasmid DNA from Escherichia coli for use in gene therapy
IN Cavallini, Bruno
PA Transgene S.A., Fr.; Cavallini, Bruno
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

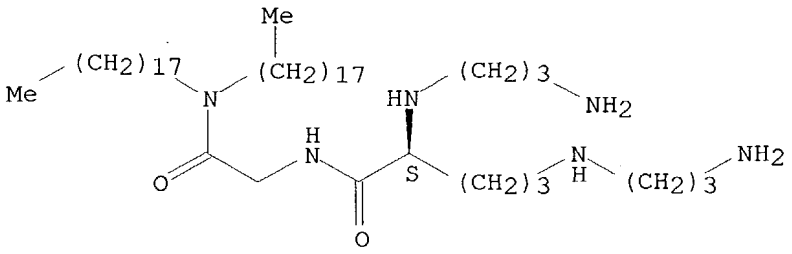
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9811208	A1	19980319	WO 1997-FR1594	19970910
W: AU, CA, JP, SG, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
			FR 1996-11075 A	19960911
FR 2753204	A1	19980313	FR 1996-11075	19960911
FR 2753204	B1	19981204		
AU 9742128	A1	19980402	AU 1997-42128	19970910
AU 733057	B2	20010503		
			FR 1996-11075 A	19960911
			WO 1997-FR1594 W	19970910
EP 958358	A1	19991124	EP 1997-940209	19970910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
			FR 1996-11075 A	19960911
			WO 1997-FR1594 W	19970910
JP 2001503971	T2	20010327	JP 1998-513314	19970910
			FR 1996-11075 A	19960911
			WO 1997-FR1594 W	19970910

AB A rapid method for the preparation of DNA suitable for administration to humans, e.g. in gene therapy is described. The method is an adaptation of the alkaline lysis technique. After lysis and neutralization to precipitate chromosomal DNA, the lysate is clarified by filtration, either by three successive filtrations through filters with pore sizes of 100, 40, and 16 μm, or a single filtration using a cartridge filter with a pore size of 8 or 3 μm. Endotoxins are then extracted from the filtrate with a detergent with a low cloud point (15-35°), preferably Triton X-114 and the plasmid recovered by ethanol precipitation RNA is removed by salt precipitation
(2-2.5 M ammonium sulfate) in the presence of calcium chloride 50-100 mM. The final stage of purification is gel chromatog. The purified plasmid DNA is then conditioned for injection. Typical yield of a pBR322-based plasmid from 360 g of wet Escherichia coli was 145 mg. The plasmid had an average protein content of 0.49%, an RNA content of 2.48% and an endotoxin content of 2.34 endotoxin units/mg plasmid.

IT **124050-77-7,** DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(liposomes for gene therapy containing; isolation of endotoxin-free plasmid DNA from Escherichia coli for use in gene therapy)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 73 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:165492 CAPLUS
DN 128:227051
TI Cationic lipid-nucleic acid complex formation and use
IN Bischoff, Rainer
PA Transgene S.A., Fr.
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9808489	A1	19980305	WO 1997-IB1030	19970825
	W: AU, CA, JP, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, BR, IE, IT, LU, MC, NL, PT, SE				
				EP 1996-401819 A	19960826
	AU 9737815	A1	19980319	AU 1997-37815	19970825
	AU 729077	B2	20010125		
				EP 1996-401819 A	19960826
				WO 1997-IB1030 W	19970825
	EP 941066	A1	19990915	EP 1997-934685	19970825
	EP 941066	B1	20031029		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				EP 1996-401819 A	19960826
				WO 1997-IB1030 W	19970825
	JP 2000516948	T2	20001219	JP 1998-511435	19970825
				EP 1996-401819 A	19960826
				WO 1997-IB1030 W	19970825
	AT 252891	E	20031115	AT 1997-934685	19970825
				EP 1996-401819 A	19960826
				WO 1997-IB1030 W	19970825
	US 6271208	B1	20010807	US 1999-254149	19990226
				EP 1996-401819 A	19960826
				WO 1997-IB1030 W	19970825

AB The present invention is directed to stable complexes or particles of cationic lipids and nucleic acid that can be used to deliver nucleic acid to a cell for the purpose of providing a therapeutic mol. to the cells of an individual in need of such treatment. The invention is also directed to stable complexes or particles of cationic lipids and nucleic acid which contain a stabilizing additive. The invention is further directed to methods for the preparation of homogenous suspensions of stable cationic

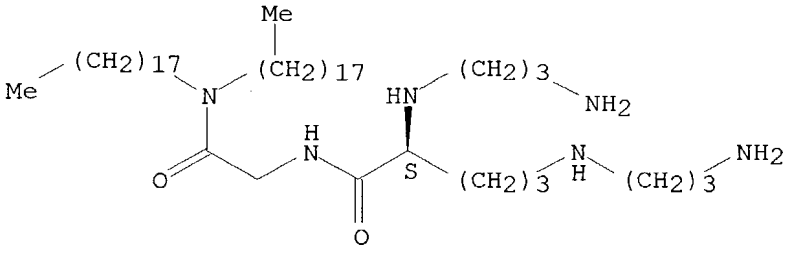
lipid-nucleic acid complexes or particles by combining one or more cationic lipids, one or more colipids, one or more stabilizing additives and a nucleic acid or other ligand. The invention also includes a method for preparing a homogenous suspension of stable cationic lipid-nucleic acid complexes or particles using optional sizing procedures such as extrusion, which can also be used as the final sterilizing step in the production process of lipid-nucleic acid complexes for administration to patients for therapeutic purposes. The invention is further directed to a homogenous suspension of stable lipid-nucleic acid complexes or particles produced by the above methods.

IT **124050-77-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(cationic lipid-nucleic acid complex formation and use)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 74 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:66006 CAPLUS

DN 128:125760

TI gp160 domains involved in antibody-dependent infection by HIV and mutations abolishing the effect

IN Mitchell, William M.

PA Vanderbilt University, USA; Mitchell, William M.

SO PCT Int. Appl., 102 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9801570	A2	19980115	WO 1997-US11667	19970702
	WO 9801570	A3	19980226		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

				US 1996-21668P P	19960705
	AU 9736501	A1	19980202	AU 1997-36501	19970702
				US 1996-21668P P	19960705
				WO 1997-US11667W	19970702

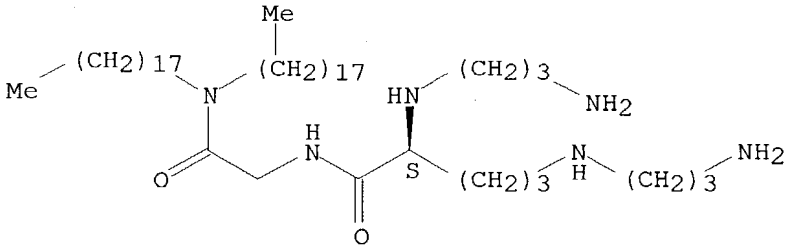
AB Mutants of human immunodeficiency virus with mutations in the domains of the gp160 and gp41 envelope glycoproteins that raise infection-enhancing antibody are described. The virus can be used in vaccines that do not make the patient more vulnerable to infection. Specific amino acid substitutions that lessen the effect are described. Macaques inoculated with the SIV homolog of one of these domains (the C'-ADE domain) showed an accelerated development of the disease upon challenge with SIVmne (mean time to death = 246 days, vs. 407 days for control animals).

IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in mucosal vaccines against HIV; gp160 domains involved in antibody-dependent infection by HIV and mutations abolishing effect)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 75 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:1565 CAPLUS

DN 128:66511

TI Increased efficiency of delivery of antisense nucleic acids using neutral phospholipid liposomes

IN Klimuk, Sandra K.; Semple, Sean C.; Scherrer, Peter; Hope, Michael J.

PA University of British Columbia, Can.

SO PCT Int. Appl., 80 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9746671	A1	19971211	WO 1997-CA347	19970522
	W: CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1996-657753 A	19960530
	EP 906421	A1	19990407	EP 1997-921565	19970522
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
				US 1996-657753 A	19960530
				WO 1997-CA347 W	19970522
	JP 2000511541	T2	20000905	JP 1998-500030	19970522
				US 1996-657753 A	19960530
				WO 1997-CA347 W	19970522

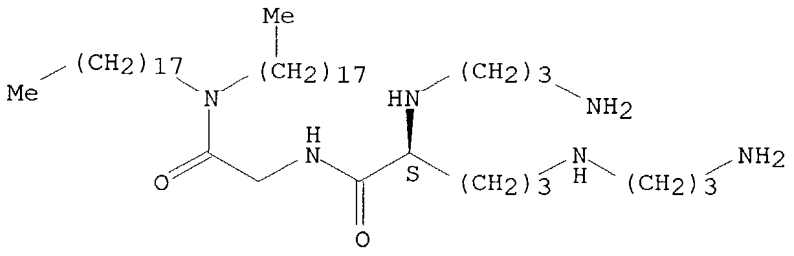
AB The efficiency of delivery of antisense nucleic acids to damaged tissues is increased by using neutral lipid-based liposomes. Neutral phospholipid liposomes do not activate complement and so avoid some of the toxicity problems associated with cationic lipids. The lipids used include at least two members selected from the group consisting of phospholipids, sterols and cationic lipids. In particular, methods for the delivery of antisense DNA to ICAM-1 to sites of inflammation are described.

IT **124050-77-7,** DOGS
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in neutral liposomes; increased efficiency of delivery of antisense nucleic acids using neutral phospholipid liposomes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 76 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:757071 CAPLUS

DN 128:39581

TI Cationic lipids for drug delivery

IN Kirpotin, Dmitri; Chan, Daniel C. F.; Bunn, Paul

PA Kirpotin, Dmitri, USA; Chan, Daniel C. F.; Bunn, Paul

SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9743363	A1	19971120	WO 1997-US8120	19970514
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				US 1996-648558	19960515
	US 5980935	A	19991109	US 1996-648558	19960515
	AU 9731248	A1	19971205	AU 1997-31248	19970514
				US 1996-648558	19960515
				WO 1997-US8120	19970514
	EP 923630	A1	19990623	EP 1997-926489	19970514
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI

US 1996-648558 19960515
WO 1997-US8120 19970514

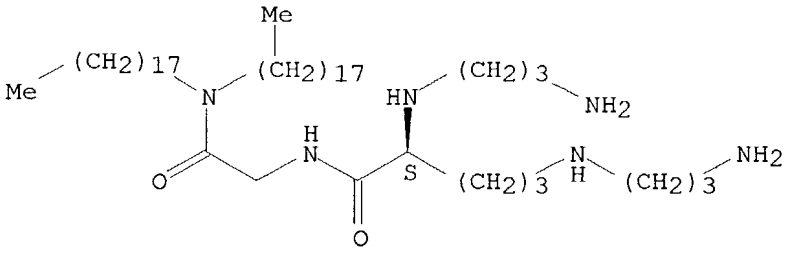
AB The present invention relates generally to a non-toxic lipid conjugated with a cationic amino acid containing a guanidino group. Specifically, the naturally-occurring lipid DOPE is combined with the naturally-occurring amino acid arginine. These compds. are useful for encapsulating and delivering pharmaceuticals and poly- and oligonucleotides. These compds. are composed of nontoxic and, in the case of Arg-DOPE, natural components, and therefore result in minimal undesirable effects. Methods for the use of cationic lipids are also claimed. N-L-arginyldioleoylphosphatidylethan olamine was prepared by the reaction of dioleoylphosphatidylethanolamine with Nα-tert-butoxycarbonylarginine in the presence of N-ethyl-N-dimethylaminopropylcarbodiimide-HCl in CHCl3. This compound was formulated into aqueous micellar solns.

IT **124050-77-7**, Transfectam
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic lipids for drug delivery)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 77 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:740426 CAPLUS

DN 128:53199

TI Cationic virosomes as transfer system for genetic material

IN Walti, Ernst Rudolf; Gluck, Reinhard; Klein, Peter

PA Nika Health Products Limited, Liechtenstein; Walti, Ernst Rudolf; Gluck, Reinhard; Klein, Peter

SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9741834	A1	19971113	WO 1997-EP2268	19970504

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

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                                          EP 1996-107282 A 19960508
     CA 2253561        AA   19971113      CA 1997-2253561  19970504
                                          EP 1996-107282 A 19960508
     AU 9727766        A1   19971126      AU 1997-27766    19970504
     AU 710170         B2   19990916
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                                          WO 1997-EP2268 W 19970504
     EP 902682         A2   19990324      EP 1997-921852   19970504
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
     CN 1225007        A    19990804      CN 1997-196232   19970504
                                          EP 1996-107282 A 19960508
     BR 9709224        A    19990810      BR 1997-9224     19970504
                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
     NZ 332666         A    20000526      NZ 1997-332666   19970504
                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
     JP 2000509404     T2   20000725      JP 1997-539526   19970504
                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
     ZA 9703885        A    19981106      ZA 1997-3885     19970506
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     HR 970234         B1   20020430      HR 1997-970234   19970507
                                          EP 1996-107282 A 19960508
     NO 9805137        A    19990104      NO 1998-5137     19981104
                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
     KR 2000010780     A    20000225      KR 1998-708906   19981105
                                          EP 1996-107282 A 19960508
     US 6210708        B1   20010403      US 1999-414872   19991008
                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
                                          US 1998-171882 A219981230
     NZ 504444         A    20001124      NZ 2000-504444   20000510
                                          EP 1996-107282 A 19960508
                                          NZ 1997-332666 A 19970504

PATENT FAMILY INFORMATION:
FAN  2001:238066
     PATENT NO.        KIND  DATE        APPLICATION NO.  DATE
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PI   US 6210708        B1   20010403      US 1999-414872   19991008
                                          EP 1996-107282 A 19960508
                                          WO 1997-EP2268 W 19970504
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         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
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             LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
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         RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
             GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
                                          EP 1996-107282 A 19960508
     NZ 504444         A    20001124      NZ 2000-504444   20000510
                                          EP 1996-107282 A 19960508
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NZ 1997-332666 A 19970504

WO 2001026628 A1 20010419 WO 2000-EP9540 20000929

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 1999-414872 A 19991008

EP 1217990 A1 20020703 EP 2000-967824 20000929

EP 1217990 B1 20040128

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

US 1999-414872 A 19991008

WO 2000-EP9540 W 20000929

JP 2003512306 T2 20030402 JP 2001-529418 20000929

US 1999-414872 A 19991008

WO 2000-EP9540 W 20000929

AT 258428 E 20040215 AT 2000-967824 20000929

US 1999-414872 A 19991008

WO 2000-EP9540 W 20000929

NO 2002001607 A 20020607 NO 2002-1607 20020405

US 1999-414872 A 19991008

WO 2000-EP9540 W 20000929

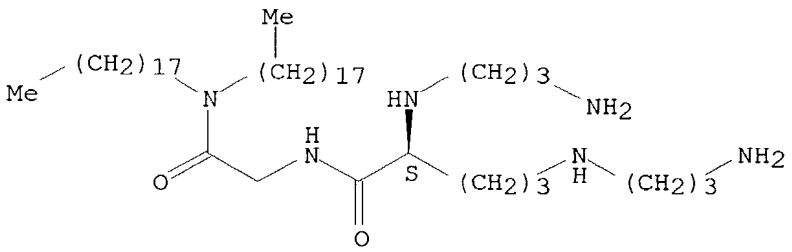
AB The present invention relates to a pos. charged virosome for efficient delivery of genetic material to resting or proliferating mammalian cells in vitro and in vivo. The virosome membrane contains cationic and/or polycationic lipids, at least one viral fusion peptide and preferably at least one cell-specific marker, advantageously selected from the group consisting of monoclonal antibodies, antibody fragments F(ab')2 and Fab', cytokines, and growth factors, for a selective detection and binding of target cells. The invention further relates to a method for the manufacture of the novel virosomes and to applications thereof, particularly for the manufacture of pharmaceutical compns. to treat cancer or leukemia.

IT **124050-77-7,** Dogs
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(cationic virosomes as transfer system for genetic material)

RN 124050-77-7 CAPLUS

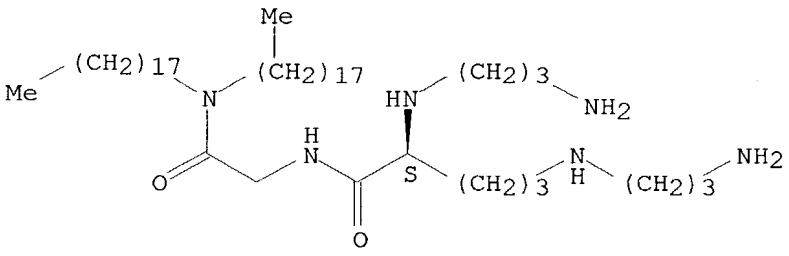
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 78 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:652162 CAPLUS
DN 127:351134
TI ExGen 500 is an efficient vector for gene delivery to lung epithelial cells in vitro and in vivo
AU Ferrari, S.; Moro, E.; Pettenazzo, A.; Behr, J. P.; Zacchello, F.; Scarpa, M.
CS Dep. PEdiatr. CRIBI Biotechnol. Cent., Univ. Padova, Italy
SO Gene Therapy (1997), 4(10), 1100-1106
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton
DT Journal
LA English
AB Nonviral vectors might represent a safe alternative to adenovirus for gene therapy of lung disorders, in particular cystic fibrosis (CF). Cationic lipids have been shown to correct the CF defect both in vitro and in vivo, but more efficient vectors are needed to improve the low gene transfer efficiency. Here, we show that the cationic polymer ExGen 500, a linear polyethylenimine derivative, is more efficient than cationic lipids in transferring reporter genes to lung epithelial cells in vitro. In vivo ExGen 500 was able to mediate gene transfer into both newborn and adult rabbit lungs with comparable efficiencies. The best levels of transfection were obtained using neutral complexes. Under such conditions, luciferase activities corresponding to about 103 RLU/10 s/mg of protein were reproducibly obtained 2 days after transfection throughout the four lung lobes of newborn and adult rabbits. A nlslacZ reporter gene showed transfected cells around the lumen of large and small bronchi. No signs of acute toxicity (inflammation, cellular infiltration etc.) were detected by direct histopathol. anal. Within 1 wk after instillation, transgene expression decreased by two orders of magnitude.
IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparison with; ExGen 500 as efficient nonviral vector for gene delivery to lung epithelial cells in vitro and in vivo)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



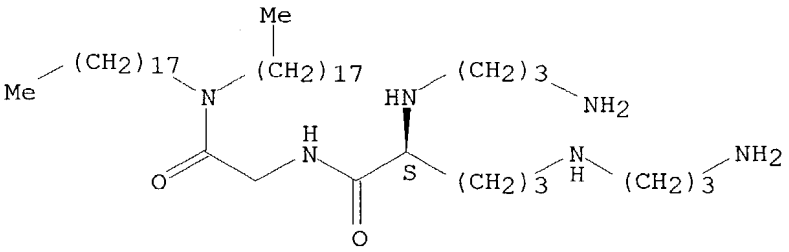
L8 ANSWER 79 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:649091 CAPLUS
DN 127:273869
TI Liposome-mediated introduction of macromolecules into eukaryotic cells using membrane-active agents to increase the efficiency of uptake
IN Finke, Sigrun; Schmidt-Wolf, Ingo G. H.

PA Finke, Sigrun, Germany; Schmidt-Wolf, Ingo G. H.
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19610805	A1	19970925	DE 1996-19610805	19960319
			DE 1996-19610805	19960319

AB A method of increasing the efficiency of uptake of cationic lipid-based liposomes by eukaryotic cells using a membrane active agent that stimulates the formation of endosomes and uptake of the liposomes is described. The preferred agent is chloroquine incorporated into the liposomes and the preferred targets for the method are leukocytes and lymphocytes. The method is particularly suitable for transformation of lymphocytes for the development of cells for therapeutic use.
IT **124050-77-7,** DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in liposomes for transformation of animal cells; liposome-mediated introduction of macromols. into eukaryotic cells using membrane-active agents to increase efficiency of uptake)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 80 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:609321 CAPLUS
DN 127:302932
TI Enhanced antisense inhibition of human immunodeficiency virus type 1 in cell cultures by DLS delivery system
AU Lavigne, Carole; Thierry, Alain R.
CS Departement de Microbiologie et Immunologie, Faculte de Medecine, Universite de Montreal, Montreal, QC, H3C 3J7, Can.
SO Biochemical and Biophysical Research Communications (1997), 237(3), 566-571
CODEN: BBRCA9; ISSN: 0006-291X
PB Academic
DT Journal
LA English
AB The relatively poor cell uptake of oligonucleotides and subsequent transport to the cytoplasm and nucleus is the main limitation in antisense therapeutics. The use of lipid-based carrier system is one of the most promising approaches to overcome these problems. In this study, the

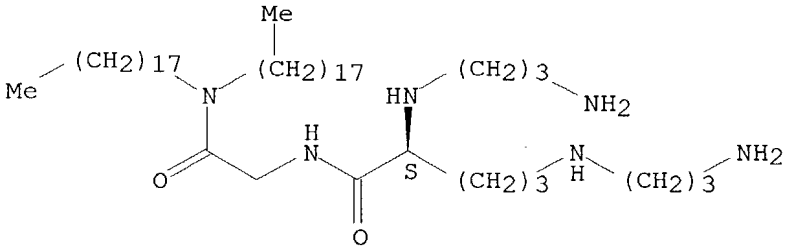
authors report the use of a new lipidic formulation to deliver a phosphorothioate oligonucleotide antisense directed against the regulatory gene rev of the HIV-1 genome and its application to the inhibition of HIV-1 in different cell culture models. Antiviral activity of either DLS-complexed or non-complexed oligonucleotides (ODNs) was compared in acutely and chronically infected cells. The authors have demonstrated that substantial antisense activity could be achieved at subnanomolar concns. with DLS-complexed ODN in both acute and chronic infection systems. DLS-association highly improved inhibitory activity of the antisense ODN in acutely infected Molt-3 cells (100-fold) and primary cells (1000-fold) and in chronically infected H9 cells (1 500 000-fold). The authors have shown that anti-HIV activity of phosphorothioate ODNs can be strongly enhanced by using the DLS carrier system.

IT **124050-77-7,** DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enhanced antisense phosphorothioate oligonucleotide against gene rev inhibition of human immunodeficiency virus type 1 in cell cultures by DLS liposome delivery system)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 81 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:568307 CAPLUS

DN 127:230340

TI Complexes of DNA, cationic lipids and membrane-active peptides for introduction of DNA into higher eukaryotic cells

IN Wagner, Ernst; Mechtler, Karl; Kichler, Antoine

PA Boehringer Ingelheim International G.m.b.H., Germany; Wagner, Ernst; Mechtler, Karl; Kichler, Antoine

SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9730170	A1	19970821	WO 1997-EP649	19970213
	W: CA, JP, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				DE 1996-19605548	19960215
	DE 19605548	A1	19970904	DE 1996-19605548	19960215
	CA 2246227	AA	19970821	CA 1997-2246227	19970213
				DE 1996-19605548	19960215
	EP 900281	A1	19990310	EP 1997-904426	19970213

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

			DE 1996-19605548	19960215
			WO 1997-EP649	19970213
JP 2000504579	T2	20000418	JP 1997-528984	19970213
			DE 1996-19605548	19960215
			WO 1997-EP649	19970213

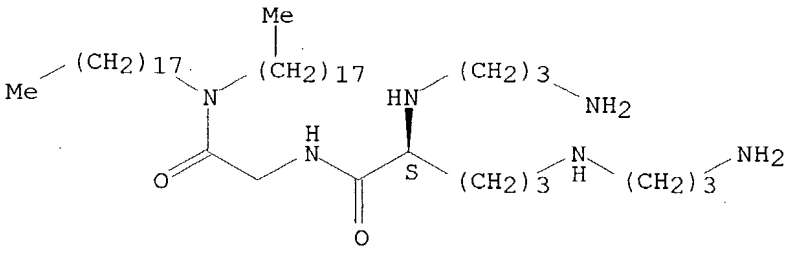
AB A carrier system for the introduction of transforming DNA into higher eukaryotic cells complexes the nucleic with a cationic lipid present in a suboptimal concentration for transfection and one or more membrane-active acidic peptides and optionally helper lipid. The ratio of the total number of pos. charges to the total number of neg. charges in the composition is between approx. 0 and approx. 3. Optimization expts. are reported. One finding was that the use of acidic peptides in the complex lessened the inhibiting effect of serum on transformation. High charge ratios also made the uptake independent of vacuolar proton exchange.

IT **124050-77-7,** Dogs
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in complexes for transformation of eukaryotic cells; complexes of DNA, cationic lipids and membrane-active peptides for introduction of DNA into higher eukaryotic cells)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 82 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:534800 CAPLUS

DN 127:244394

TI Nanoscopic structure of DNA condensed for gene delivery

AU Dunlap, David D.; Maggi, Alessia; Soria, Marco R.; Monaco, Lucia

CS DIBIT, San Raffaele Scientific Institute, Milan, 20132, Italy

SO Nucleic Acids Research (1997), 25(15), 3095-3101
CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

LA English

AB Scanning force microscopy was used to examine DNA condensates prepared with varying stoichiometries of lipospermine or polyethylenimine in physiol. solution For the first time, individual DNA strands were clearly visualized in incomplete condensates without drying. Using lipospermine at sub-saturating concns., discrete nuclei of condensation were observed often surrounded by

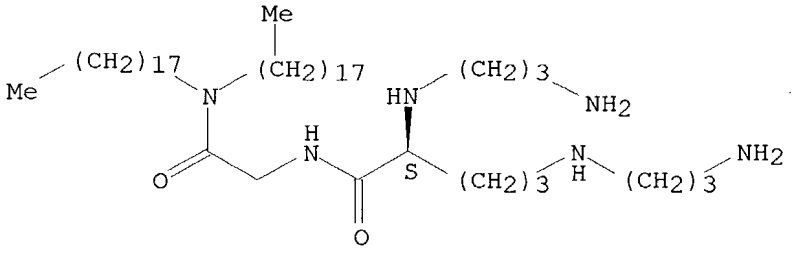
folded loops of DNA. Similar packing of DNA loops occurred for polyethylenimine-induced condensation. Increasing the amount of the condensing agent led to the progressive coalescence or aggregation of initial condensation nuclei through folding rather than winding the DNA. At over-saturating charge ratios of the cationic lipid or polymer to DNA, condensates had sizes smaller than or equal to those measured previously in electron micrographs. Polyethylenimine condensates were more compact than lipospermine condensates and both produced more homogeneously compacted plasmids when used in a 2-4-fold charge excess. The size and morphol. of the condensates may affect their efficiency in transfection.

IT **124050-77-7D**, DOGS, DNA aggregates
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nanoscopic structure of DNA condensed for gene delivery)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 83 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:524837 CAPLUS

DN 127:166650

TI Optimization of lipoplex formulations for intravenous gene delivery

AU Thierry, Alain R.

CS Biovector Therapeutics, Chemin du chene vert, Labege, 31676, Fr.

SO Journal of Liposome Research (1997), 7(2 & 3), 143-159
CODEN: JLREE7; ISSN: 0898-2104

PB Dekker

DT Journal

LA English

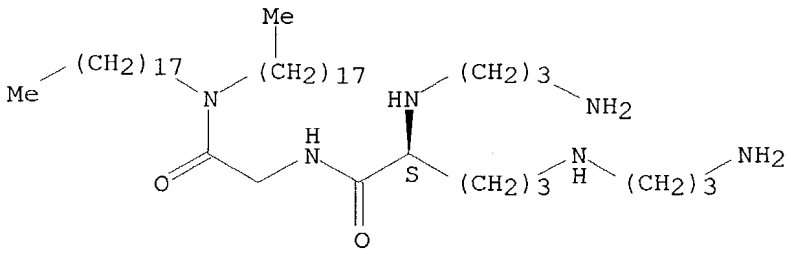
AB A synthetic lipid-based gene delivery system, termed DLS, which meets some requirements to be suitable for systemic administration is under development. The DLS system was designed to account for the combinatory aspect of lipid composition and formulation. Optimized DLS preparation is highly reproducible and stable, exhibit great structural and low mean size homogeneity, and results in high efficacy following i.v. administration. Factors influencing pDNA biodistribution, transgene tissue specific activity, and toxicity are discussed.

IT **124050-77-7**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(optimization of lipoplex formulations for i.v. gene delivery)

RN 124050-77-7 CAPLUS

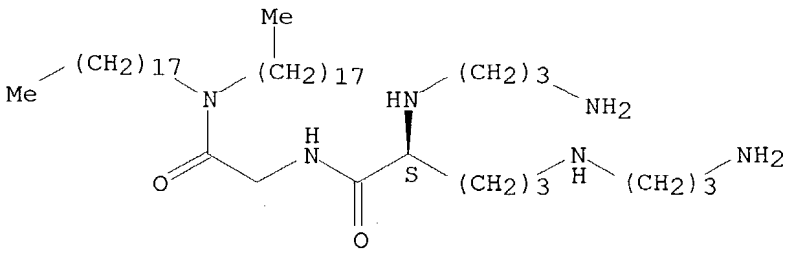
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



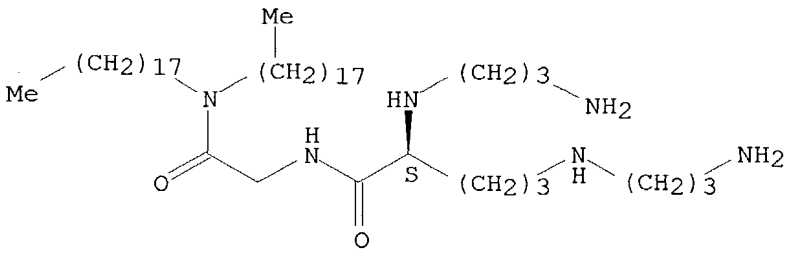
L8 ANSWER 84 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:460967 CAPLUS
DN 127:117066
TI Cationic phosphonolipids as non viral vectors for DNA transfection in hematopoietic cell lines and CD34+ cells
AU Floch, Virginie; Le Bolc'h, Gwenaelle; Audrezet, Marie-Pierre; Yaouanc, Jean-Jacques; Clement, Jean-Claude; Des Abbayes, Herve; Mercier, Bernard; Abgrall, Jean-Francois; Ferec, Claude
CS Centre de Biogenetique, University, Hospital, ETSBO, Brest, 29275, Fr.
SO Blood Cells, Molecules & Diseases (1997), 23(1), 69-87
CODEN: BCMDFX; ISSN: 1079-9796
PB Academic
DT Journal
LA English
AB The ability to transfer genes into a hematopoietic stem cell and to achieve regulation of their expression in lymphoid or myeloid lineages should open many new therapeutic opportunities. Besides gene transfer mediated by virus vectors like retrovirus or adenovirus, non viral systems have the theor. advantage of being safe and easy to manage. We developed a new family of cationic lipids called phosphonolipids, synthesized 24 new mols., and then in a first step we tested their potential to transfer genes in human hematopoietic cell lines (K562 and TF1). A LacZ plasmid under the control of a strong viral promoter was used as a reporter gene and a FACS-Gal assay and a quant. test CPRG assay evaluated the β gal expression. The targeted cells were analyzed 48 h after transfection. The present work shows that seven novel mols. display a high transfer efficiency. One of them is nine-fold more efficient than the com. available cationic lipids. The results obtained ex vivo on CD34 cells with the FACS-Gal assay show that at day 10 after transfection, 45 percent of cells are expressing gal.
IT **124050-77-7**, Transfectam
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic phosphonolipids as vectors for DNA transfection in hematopoietic cell lines and CD34+ cells)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 85 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:391770 CAPLUS
DN 127:104097
TI Enhancement of the inhibitory effect of antisense DNA toward mRNA of VEGF on tube formation of HUVEC by cationic liposomes
AU Shoji, Yoko; Matsubara, Tsukasa; Ouchi, Nobuka; Uchida, Kiyoshi; Shimada, Jingoro; Mizushima, Yutaka
CS Inst. Med. Sci., St. Marianna Univ. Sch. Med., Kawasaki, 216, Japan
SO Drug Delivery System (1997), 12(3), 187-192
CODEN: DDSYEI; ISSN: 0913-5006
PB Nippon DDS Gakkai Jimukyoku
DT Journal
LA Japanese
AB In the past decade, many researchers have been keen to apply the antisense oligonucleotides as therapeutic agents. Several antisense mols. are now going on the clin. trials. However, unappropriated targeting efficacy hamper to get sufficient biol. activities. The effort to overcome the nuclease instability of antisense mols. leads to the development of various stable analogs. Since antisense mols. distribute in lysosomes, sufficient biol. functions can not be expected. If antisense mols. can be delivered to appropriate site with high efficiency, application of antisense strategy would be widened. In this study, we synthesized antisense phosphorothioate oligonucleotides (S-oligo) toward mRNA of vascular endothelial growth factor(VEGF) and 80 S-oligos candidates were tested in in vitro translation system. From this selection, 4 compds. were tested as the inhibitory effect on tube formation of human umbilical vascular endothelial cell (HUVEC). Since inhibitory effect of S-oligo on bute formation of HUVEC was not sufficient enough, we used transfectam to enhance the biol. activity of S-oligo. Transfectam enhanced the inhibitory activity of S-oligo. While S-oligo itself were distributed in the cytoplasm punctately, S-oligo an transfectam complex localized in the cytoplasm and some fractions were in the nucleus. Localization of S-oligo in whole cells would contribute to enhance the biol. activity. However, further study is required to obtain the enhancement of particular antisense activity in a sequence specific manner.
IT **124050-77-7**, Transfectam
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enhancement of the inhibitory effect of antisense DNA toward mRNA of VEGF on tube formation of HUVEC by cationic liposomes)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 86 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:384233 CAPLUS
DN 127:4086
TI Hormone immunomodulated induction of mucosal immune responses
IN Mitchell, William M.
PA Merlin Technologies, Inc., USA
SO PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9714442	A1	19970424	WO 1996-US16845	19961017
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1995-544575 A	19951018
	CA 2233166	AA	19970424	CA 1996-2233166	19961017
				US 1995-544575 A	19951018
	AU 9674620	A1	19970507	AU 1996-74620	19961017
	AU 696850	B2	19980917		
				US 1995-544575 A	19951018
				WO 1996-US16845W	19961017
	EP 855919	A1	19980805	EP 1996-936786	19961017
	EP 855919	B1	20030723		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1995-544575 A	19951018
				WO 1996-US16845W	19961017
	JP 2000501381	T2	20000208	JP 1997-516083	19961017
				US 1995-544575 A	19951018
				WO 1996-US16845W	19961017
	AT 245453	E	20030815	AT 1996-936786	19961017
				US 1995-544575 A	19951018
				WO 1996-US16845W	19961017

AB The invention provides a method of inducing a mucosal immune response in a subject, comprising administering to the subject an amount of antigen-encoding DNA effective to induce a mucosal immune response complexed to a transfection-facilitating cationic lipid and an amount of vitamin D3. In the method of inducing a mucosal immune response, the antigen-encoding DNA can encode an antigen that is expressed on the surface of transfected cells and mimic critical elements of infection. DNA encoding the envelope glycoproteins of viral linked to cationic grouping in which there is coordination of pos. charged groups with a neg. charged phosphate oxygen of the DNA chain forming an ionic charge complex. Two preferred examples of cationic lipids are DOGS (dioctadecylamidoglycylspermidine) and TEDBI (N,N,N',N'-tetramethyl

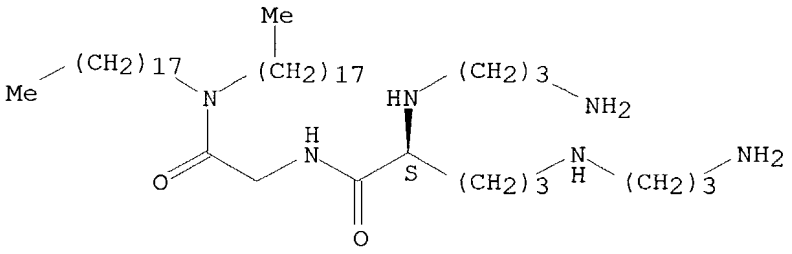
N,N'-bis(2-hydroxyethyl)-2,3-dioleoyloxy-1,4-butane diammonium iodide). The invention also provides a composition, comprising an amount of DNA encoding an envelope antigen or envelope-associated antigen of a pathogen complexed to a cationic lipid. More specifically, the invention provides a composition, comprising an amount of DNA encoding an envelope antigen of HIV complexed to a cationic lipid.

IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DNA vaccine encoding envelope antigen and vitamin D3 and transfection-facilitating cationic lipid for induction of mucosal immune responses)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 87 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:358122 CAPLUS

DN 127:91923

TI Structure of in-serum transfecting DNA-cationic lipid complexes

AU Boukhnikachvili, T.; Aguerre-Chariol, O.; Airiau, M.; Lesieur, S.; Ollivon, M.; Vacus, J.

CS Rhone-Poulenc Rorer Gencell, Centre de Recherche de Vitry-Alfortville 13, Quai Jules Guesde, Vitry sur Seine, 94400, Fr.

SO FEBS Letters (1997), 409(2), 188-194
CODEN: FEBLAL; ISSN: 0014-5793

PB Elsevier

DT Journal

LA English

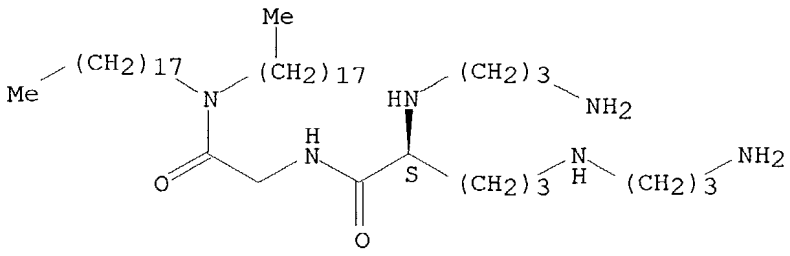
AB Noticeable modifications of in-serum transfection efficiency of dioctadecylamidoglycyl-spermine (DOGS)-DNA complexes are observed, depending on DNA condensation conditions. The structures of the complexes are studied, keeping in mind the variability of lipid polymorphism, by cryo-TEM and x-ray diffraction. By increasing both pH and ionic strength, well-organized lamellar structures with a period of 65 Å replace supramicellar aggregates. A relation between the structures and their in-vitro transfection activity is established. Efficiency in the presence of serum is maintained when a lamellar arrangement is involved.

IT **124050-77-7D**, DOGS, lipo, -DNA complex
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(multilayered, lamellar arrangement of in-serum transfecting DNA-cationic lipid complexes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 88 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:310802 CAPLUS
DN 126:289011
TI Use of HMG protein complexes with nucleic acids for transformation of animal cells in gene therapy without the use of virus vectors
IN Blanche, Francis; Cameron, Beatrice; Crouzet, Joel; Thuillier, Vincent
PA Rhone-Poulenc Rorer S.A., Fr.; Blanche, Francis; Cameron, Beatrice; Crouzet, Joel; Thuillier, Vincent
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9712051	A1	19970403	WO 1996-FR1516	19960927
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				FR 1995-11411 A	19950928
	FR 2739292	A1	19970404	FR 1995-11411	19950928
	FR 2739292	B1	19971031		
	ZA 9608109	A	19970421	ZA 1996-8109	19960926
				FR 1995-11411 A	19950928
	CA 2231064	AA	19970403	CA 1996-2231064	19960927
				FR 1995-11411 A	19950928
	AU 9671361	A1	19970417	AU 1996-71361	19960927
	AU 720697	B2	20000608		
				FR 1995-11411 A	19950928
				WO 1996-FR1516 W	19960927
	EP 854930	A1	19980729	EP 1996-932668	19960927
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI				
				FR 1995-11411 A	19950928
				WO 1996-FR1516 W	19960927
	BR 9610719	A	19990713	BR 1996-10719	19960927
				FR 1995-11411 A	19950928
				WO 1996-FR1516 W	19960927
	JP 11512704	T2	19991102	JP 1996-513192	19960927
				FR 1995-11411 A	19950928
				WO 1996-FR1516 W	19960927

NO 9801322	A	19980324	NO 1998-1322	19980324
			FR 1995-11411 A	19950928
			WO 1996-FR1516 W	19960927
US 6153597	A	20001128	US 1998-43856	19980327
			FR 1995-11411 A	19950928
			WO 1996-FR1516 W	19960927

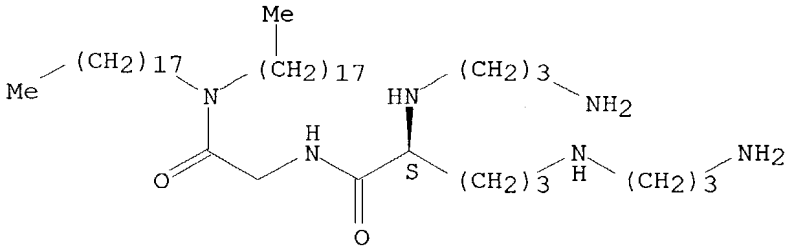
AB High-mobility group (HMG) proteins are used to complex DNA to increase the efficiency of transformation of animal cells, e.g. in gene therapy, to avoid the use of viral vectors. Transformation uses the DNA complexed with an HMG protein and an agent, such as a ligand for a tissue-specific cell surface protein, that will direct the DNA to a specific cell or tissue type or increase the efficiency of uptake by a specific cell type. The DNA is further complexed with a transfection agent such as a polycation or liposomes.

IT **124050-77-7D**, DOGS, complexes with DNA and HMG proteins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(in transformation of animal cells; use of HMG protein complexes with nucleic acids for transformation of animal cells in gene therapy without use of virus vectors)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 89 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:308659 CAPLUS

DN 126:326181

TI Nanoparticles as carriers for antisense oligonucleotides

AU Balland, Olivier; Saison-Behmoaras, Tula; Garestier, Therese; Helene, Claude

CS Laboratoire de Biophysique, Museum National Histoire Naturelle, Paris, 75231, Fr.

SO NATO ASI Series, Series A: Life Sciences (1996), 290(Targeting Drugs 5), 131-142
CODEN: NALSDJ; ISSN: 0258-1213

PB Plenum

DT Journal

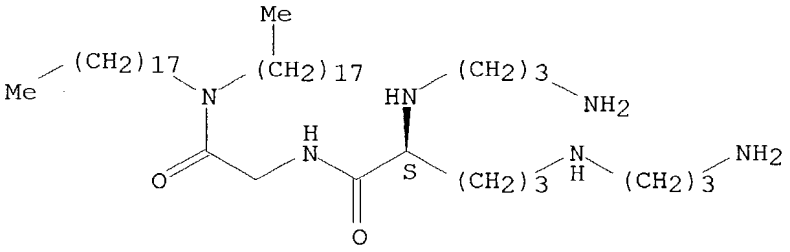
LA English

AB Polyisohexylcyanoacrylate (PIHCA) nanoparticles with cetyltrimethylammonium bromide (CTAB) to promote antisense oligonucleotides association were prepared Nanoparticle protection of oligonucleotide against degradation was demonstrated by measuring the half-lives of oligonucleotides free or adsorbed on the nanoparticles in media containing 3'-exonuclease and in cell culture media. Uptake of oligonucleotides was increased when adsorbed on nanoparticles in a

macrophage-like cell line U937. A human cell line transformed by Ha-ras oncogene showed greater growth inhibition after treatment with Ha-ras oncogene antisense oligonucleotide complexed with both PIHCA and CTAB under tests in cell culture and nude mice. The use of lipospermines as ion-pairing agents or fullerenes as a hydrophobic conjugate appears to provide alternative carrier systems.

IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DOGS; nanoparticles as carriers for antisense oligonucleotides)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 90 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:266788 CAPLUS
DN 127:1384
TI Optimization of transfection of human endothelial cells
AU Teifel, Michael; Heine, Lars Thorsten; Milbredt, Silke; Friedl, Peter
CS Institut Biochemie, Technische Hochschule Darmstadt, Darmstadt, D-64287, Germany
SO Endothelium (1997), 5(1), 21-35
CODEN: ENDTE9; ISSN: 1062-3329
PB Harwood
DT Journal
LA English
AB Usability of Ca phosphate, DEAE-dextran transfection, transfection, lipofection, and electroporation was compared for the transfection of early passage human umbilical vein endothelial cells (HUVEC) and for the human endothelial cell lines ECV 304 and EA.hy 926. Classic transfection methods resulted in no or only marginal expression of the reporter gene Escherichia coli β-galactosidase. For lipofection expts. the com. available liposome formulations DOTAP and Transfectam with liposomes prepared of dimethyldioctadecylammonium bromide (DDAB) or 1,2-dimyristyloxypropyl-3-dimethylhydroxyethylammonium bromide (DMRIE) as the cationic lipid compound and dioleylphosphatidylethanolamine (DOPE) or Azolectin (phosphatidylcholine II) as neutral co-lipid were compared. A protocol for the chemical synthesis of DMRIE was developed. With transfection protocols optimized for each cell line transfection efficiencies up to 2% were achieved. Lipofection was a reliable technique for the efficient transfection of the human endothelial cell lines ECV 304 and EA.hy 926, resulting in transfection efficiencies of about 2%. HUVEC showed the highest transfection efficiencies with 0.45% for DOTAP-mediated lipofection and 0.68% for the electroporation, the most reliable technique

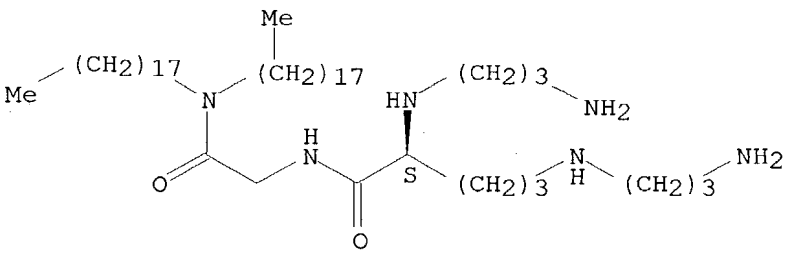
for the transfection of these cells.

IT **124050-77-7**, Transfectam
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(optimization of transfection of human endothelial cells)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 91 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:218606 CAPLUS

DN 126:212448

TI Novel amide-based cationic lipids

IN Schwartz, David Aaron; Daily, William S.; Dwyer, Brian Patrick; Srinivasan, Kumar; Brown, Bob Dale

PA Genta Incorporated, USA; Schwartz, David Aaron; Daily, William S.; Dwyer, Brian Patrick; Srinivasan, Kumar; Brown, Bob Dale

SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9703939	A1	19970206	WO 1996-US12087	19960722
	W: AU, CA, IL, JP, KR, NZ, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				US 1995-505802 A	19950721
	AU 9666494	A1	19970218	AU 1996-66494	19960722
	AU 707947	B2	19990722		
				US 1995-505802 A	19950721
				WO 1996-US12087W	19960722
	EP 869937	A1	19981014	EP 1996-926111	19960722
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1995-505802 A	19950721
				WO 1996-US12087W	19960722
	JP 11510489	T2	19990914	JP 1996-506945	19960722
				US 1995-505802 A	19950721
				WO 1996-US12087W	19960722

PATENT FAMILY INFORMATION:

FAN 2000:78926

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI US 6020526 A 20000201 US 1996-681297 19960722
US 6339173 B1 20020115 US 1999-327392 19990607
US 1996-681297 A119960722
US 2002156237 A1 20021024 US 2002-46332 20020114
US 6638529 B2 20031028
US 1995-505802 B119950721
US 1996-681297 A119960722
US 1999-327392 A319990607

OS MARPAT 126:212448

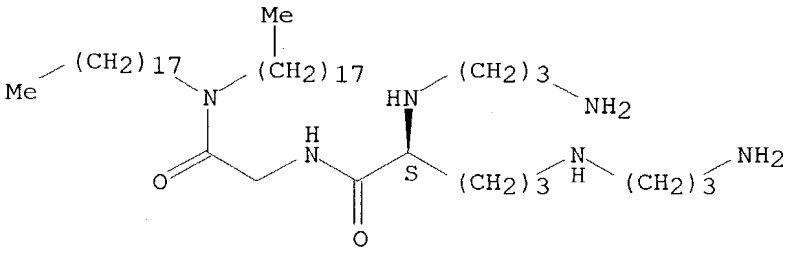
AB Novel amide-based cationic lipids R2(NHCHR4CO)n(NHCHR3)pYCOR1 (Y = bond, alkylene; R1 = H, lipophilic moiety; R2, R3, R4 = pos. charged moiety or H, alkyl, heterocyclyl; n, p = 0-8; X- = anion or polyanion; m = integer from 0 to a number equivalent to the pos. charge present on the lipid) or their salts, solvates , or enantiomers were prepared The invention provides compns. of these lipids with polyanionic macromols., methods for interfering with protein expression in a cell utilizing these compns. and a kit for preparing the same. Thus, N2-[N2,N5-bis(3-aminopropyl)-L-ornithyl]-N,N-dioctadecyl-L-glutamine tetrahydrochloride (I) was prepared via coupling of N2,N5-bis[(1,1-dimethylethoxy)carbonyl]-N2,N5-bis[3-[(1,1-dimethylethoxy)carbonyl]aminopropyl]-L-ornithine N-hydroxysuccinimidyl ester with N,N-dioctadecyl-L-glutamine benzyl ester hydrotrifluoroacetate, followed by hydrogenolysis over Pd/C and deprotection using HCl in dioxane. The synthesized cationic lipids, including I, were assayed for transient transfection efficiency in COS-7, SNB-19, RD and C8161 cells and for nuclear delivery of oligonucleotides of varing charge densities.

IT **124050-77-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(novel amide-based cationic lipids)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 92 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:190088 CAPLUS

DN 126:282628

TI Characterization of liposome-mediated gene delivery expression, stability and pharmacokinetics of plasmid DNA

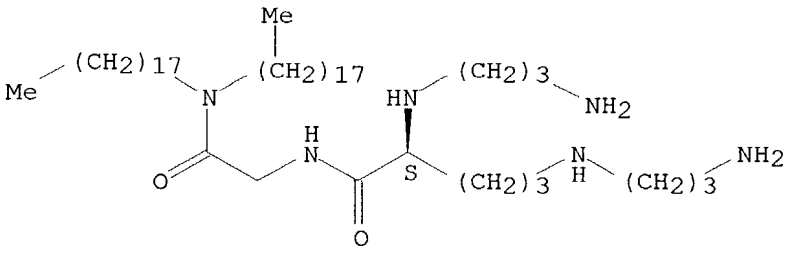
AU Thierry, A. R.; Rabinovich, P.; Peng, B.; Mahan, L. C.; Bryant, J. L.; Gallo, R. C.

CS Lab. Tumor Cell Biol., Natl. Cancer Inst., Bethesda, MD, USA

SO Gene Therapy (1997), 4(3), 226-237
CODEN: GETHEC; ISSN: 0969-7128

PB Stockton
DT Journal
LA English
AB The authors have characterized a new synthetic gene delivery system, termed DLS, which may be suitable for systemic gene therapy. DLS constitutes a lipopolyamine and a neutral lipid and associated plasmid DNA in the formation of lamellar vesicles (DLS-DNA). The ratio of lipids and lipid to DNA as well as the method of preparation were optimized to yield a high in vitro transfection efficiency compared with that previously reported for cationic lipid systems. DLS-DNA showed a rapid cellular uptake and distribution in the cytoplasmic and nuclear (especially in the nucleoli) compartments as determined by laser-assisted confocal microscopy. There was little or no plasmid DNA degradation over a period of 20 min, relatively slow plasma clearance, and effective and rapid cellular uptake of DLS-DNA following i.v. administration in mice. Supercoiled plasmid DNA could be detected in blood cells ≤1 h after injection. Systemic administration of DLS-DNA yielded transgene expression in mouse tissues, such as in lung or liver. The ratio of DLS:DNA and the procedure used to form DLS-DNA affected both the level and cellular specificity of expression of a luciferase reporter gene showing that in vitro transfection efficiency of DLS-DNA formulations cannot be easily extrapolated to an in vivo setting. Optimization of the formulation of a DNA delivery system was critical to obtain a defined structure resulting in a preparation with high reproducibility and stability, greater homogeneity of particle size and high efficacy following systemic gene transfer. In addition, the DLS system may be formulated for specific target tissues and may have a wide range of applications for gene therapy.
IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(characterization of liposome-mediated gene delivery expression in relation to stability and pharmacokinetics of plasmid DNA)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

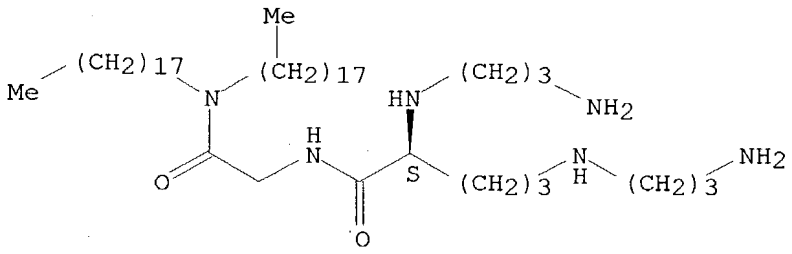
Absolute stereochemistry.



L8 ANSWER 93 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:187508 CAPLUS
DN 126:268364
TI Complexes of adenovirus with polycationic polymers and cationic lipids increase the efficiency of gene transfer in vitro and in vivo
AU Fasbender, Al; Zabner, Joseph; Chillon, Miguel; Moninger, Thomas O.; Puga, Aurita P.; Davidson, Beverly L.; Welsh, Michael J.
CS Dep. Internal Med. and Physiology and Biophysics, Univ. Iowa College Med., Iowa City, IA, 52242, USA
SO Journal of Biological Chemistry (1997), 272(10), 6479-6489

CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB Improving the efficiency of gene transfer remains an important goal in developing new treatments for cystic fibrosis and other diseases. Adenovirus vectors and non-viral vectors each have specific advantages, but they also have limitations. Adenovirus vectors efficiently escape from the endosome and enter the nucleus, but the virus shows limited binding to airway epithelia. Nonviral cationic vectors bind efficiently to the neg. charged cell surface, but they do not catalyze subsequent steps in gene transfer. To take advantage of the unique features of the two different vector systems, we noncovalently complexed cationic mols. with recombinant adenovirus encoding a transgene. Complexes of cationic polymers and cationic lipids with adenovirus increased adenovirus uptake and transgene expression in cells that were inefficiently infected by adenovirus alone. Infection by both complexes was independent of adenovirus fiber and its receptor and occurred via a different cellular pathway than adenovirus alone. Complexes of cationic mols. and adenovirus also enhanced gene transfer to differentiated human airway epithelia in vitro and to the nasal epithelium of cystic fibrosis mice in vivo. These data show that complexes of adenovirus and cationic mols. increase the efficiency of gene transfer, which may enhance the development og gene therapy.
IT **124050-77-7,** DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(non-cholesterol-based cationic lipids; adenovirus vector with polycationic polymers and cationic lipids increase efficiency of gene transfer in vitro and in vivo)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

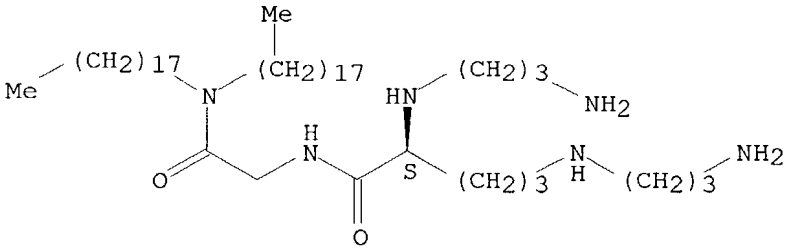
Absolute stereochemistry.



L8 ANSWER 94 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:151956 CAPLUS
DN 126:234140
TI Liposomal induction of NO synthase expression in cultured vascular smooth muscle cells
AU Scott-Burden, Timothy; Engler, David A.; Tock, Christine L.; Schwarz, John J.; Casscells, S. Ward
CS Vascular Cell Biology Laboratory, Texas Heart Institute, Houston, TX, 77225, USA
SO Biochemical and Biophysical Research Communications (1997), 231(3), 780-783
CODEN: BBRCA9; ISSN: 0006-291X

PB Academic
DT Journal
LA English
AB Transfection of bovine smooth muscle cells with plasmid constructs containing the full coding sequence for endothelial NO synthase (NOS3) using liposome-mediated gene transfer gave rise to cells that produced high levels of NO. Western anal. indicated that transfected cells were indeed expressing NOS3 protein, but, in addition, expression of inducible NO synthase (NOS2) was detected. The latter accounted for the high levels of NO produced by transfectants. Treatment of bovine or rat smooth muscle cells or 3T3 fibroblasts with only liposome prepns. resulted in the induction of NOS2 expression and NO production All liposomal reagents were shown to be endotoxin free. Direct induction of gene expression by liposomes alone suggests caution in interpretation of data for which gene transfer is mediated by liposomal prepns.
IT **124050-77-7**, Transfectam
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(liposomal induction of NO synthase expression in cultured vascular smooth muscle cells)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 95 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:140261 CAPLUS
DN 126:148479
TI Stabilization of polynucleotide complexes
IN Szoka, Francis C., Jr.; Wang, Jinkang
PA Regents of the University of California, USA
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9640265	A1	19961219	WO 1996-US7866	19960528

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML
US 1995-485430 A 19950607

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     CA 2223921         AA   19961219       CA 1996-2223921  19960528
                                            US 1995-485430 A 19950607
     AU 9659381         A1   19961230       AU 1996-59381    19960528
     AU 707734          B2   19990715
                                            US 1995-485430 A 19950607
                                            WO 1996-US7866 W 19960528
     EP 833667          A1   19980408       EP 1996-916714   19960528
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
                                            US 1995-485430 A 19950607
                                            WO 1996-US7866 W 19960528
     JP 2001516329      T2   20010925       JP 1997-500793   19960528
                                            US 1995-485430 A 19950607
                                            WO 1996-US7866 W 19960528
     AU 9921179         A1   19990513       AU 1999-21179    19990315
     AU 720187          B2   20000525
                                            US 1995-485430 A 19950607
                                            AU 1996-59381  A319960528

PATENT FAMILY INFORMATION:
FAN  1994:184644
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
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PI   WO 9319768         A1   19931014       WO 1993-US3406   19930405
         W:  AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP,
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             SK, UA, VN
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AB Polynucleotide complexes are stabilized by adding a cryoprotectant compound and lyophilizing the resulting formulation. Cryoprotectant compds.

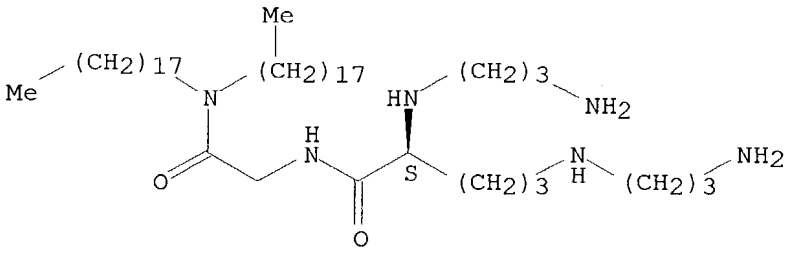
comprise carbohydrates, preferably lactose and sucrose, but also glucose, maltodextrins, mannitol, sorbitol, trehalose, and others. Betaines, prolines, and other amino acids may also be useful. Preferably, DNA complexes are cryoprotected with lactose at concns. of about 1.25% to about 10% (w/vol). Conventional buffers may also be added to the mixture The lyophilized formulations may be stored for extended periods of time and then rehydrated prior to use.

IT **124050-77-7**, DOGS
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polynucleotide complexes; stabilization and lyophilization of polynucleotide complexes for storage prior to gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 96 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:134871 CAPLUS

DN 126:148488

TI Separation of active complexes from mixtures of polynucleotides associated with transfecting components

IN Skoza, Francis C., Jr.; Xu, Yuhong; Wang, Jinkang

PA Regents of the University of California, USA

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 7

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RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

			US 1995-482254 A	19950609
AU 9659382	A1	19970109	AU 1996-59382	19960528
AU 708179	B2	19990729		
			US 1995-482254 A	19950609
			WO 1996-US7867 W	19960528
EP 836645	A1	19980422	EP 1996-916715	19960528

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

			US 1995-482254 A	19950609
			WO 1996-US7867 W	19960528
JP 11507922	T2	19990713	JP 1997-503085	19960528
			US 1995-482254 A	19950609
			WO 1996-US7867 W	19960528
AU 9921179	A1	19990513	AU 1999-21179	19990315
AU 720187	B2	20000525		
			US 1995-485430 A	19950607
			AU 1996-59381 A3	19960528

FAN 1999:686600

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5972600	A	19991026	US 1995-482110	19950607

				US 1992-864876 B219920403
				US 1992-913669 B219920714
				US 1993-92200 B219930714
EP 1236473		A2	20020904	EP 2002-1408 19930405
EP 1236473		A3	20030115	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
				US 1992-864876 A 19920403
				US 1992-913669 A 19920714
				EP 1993-909508 A319930405
US 6113946		A	20000905	US 1995-469433 19950606
				US 1992-864876 B219920403
				US 1992-913669 B219920714
				US 1993-92200 B119930714
US 5661025		A	19970826	US 1995-480463 19950607
				US 1992-864876 B219920403
				US 1992-913669 A219920714
				US 1993-92200 B319930714
US 5990089		A	19991123	US 1995-486826 19950607
				US 1992-864876 B219920403
				US 1992-913669 B219920714
				US 1993-92200 B319930714
US 5811406		A	19980922	US 1995-482254 19950609
				US 1995-482110 A219950607
				US 1995-485430 A219950607
CA 2223934		AA	19961219	CA 1996-2223934 19960528
				US 1995-482110 A 19950607
WO 9640264		A1	19961219	WO 1996-US7824 19960528
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
				US 1995-482110 A 19950607
AU 9660248		A1	19961230	AU 1996-60248 19960528
AU 714526		B2	20000106	
				US 1995-482110 A 19950607
				WO 1996-US7824 W 19960528
EP 831923		A1	19980401	EP 1996-917839 19960528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
				US 1995-482110 A 19950607
				WO 1996-US7824 W 19960528
JP 2001517061		T2	20011002	JP 1997-500774 19960528
				US 1995-482110 A 19950607
				WO 1996-US7824 W 19960528
JP 2004000245		A2	20040108	JP 2003-200068 20030722
				US 1992-864876 A 19920403
				US 1992-913669 A 19920714
				JP 1993-517793 A319930405

AB The invention separates defined, active complexes that share a particular physicochem. characteristic such as d., surface charge or particle size from complexes formed by the association of a polynucleotide with a transfecting component that increases transfection activity, such as a lipid, cationic lipid, liposome, peptide, cationic peptide, dendrimer or polycation. In a preferred embodiment, polynucleotide-transfecting component complexes are ultracentrifuged to resolve one or more bands corresponding to complexes having a specific polynucleotide-transfecting component interaction. Polynucleotide complexes having a cationic

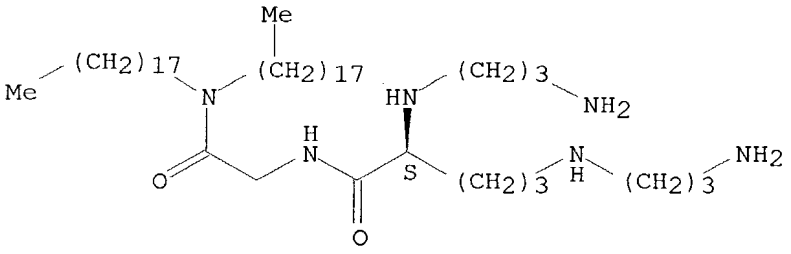
liposome transfecting component resolve into two primary bands corresponding to complexes formed either under excess lipid conditions or under excess polynucleotide conditions. In an alternate embodiment, polynucleotide-transfecting component complexes are resolved using cross-flow electrophoresis in identify complexes having specific interactions and to sep. them from excess initial components. This invention is of relevance to delivery of polynucleotides for gene therapy.

IT **124050-77-7**, DOGS
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(separation of active complexes from mixts. of polynucleotides associated with transfecting components)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 97 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:124470 CAPLUS

DN 126:127874

TI Liposomes suitable for in vivo delivery of nucleic acids into mammalian cells and methods for their preparation

IN Wheeler, Jeffery J.; Bally, Marcel B.; Zhang, Yuan-Peng; Reimer, Dorothy L.; Hope, Michael; Cullis, Pieter R.; Scherrer, Peter

PA Inex Pharmaceuticals Corporation, Can.

SO PCT Int. Appl., 119 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9640964	A2	19961219	WO 1996-US9949	19960606
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
			US 1995-484282 A	19950607
			US 1995-485458 A	19950607
US 5705385	A	19980106	US 1995-485458	19950607
US 5981501	A	19991109	US 1995-484282	19950607
CA 2222328	AA	19961219	CA 1996-2222328	19960606
			US 1995-484282 A	19950607

				US 1995-485458 A 19950607
	AU 9663307	A1	19961230	AU 1996-63307 19960606
	AU 723163	B2	20000817	
				US 1995-484282 A 19950607
				US 1995-485458 A 19950607
				WO 1996-US9949 W 19960606
	EP 832271	A2	19980401	EP 1996-922432 19960606
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
				US 1995-484282 A 19950607
				US 1995-485458 A 19950607
				WO 1996-US9949 W 19960606
	JP 11507537	T2	19990706	JP 1996-502106 19960606
				US 1995-484282 A 19950607
				US 1995-485458 A 19950607
				WO 1996-US9949 W 19960606
	US 6534484	B1	20030318	US 1999-436933 19991108
				US 1995-484282 A119950607
	US 2003181410	A1	20030925	US 2003-374673 20030224
				US 1995-484282 A119950607
				US 1999-436933 A119991108

PATENT FAMILY INFORMATION:

FAN 1999:704853

	PATENT NO.	KIND	DATE	APPLICATION NO. DATE
PI	US 5976567	A	19991102	US 1996-660025 19960606
				US 1995-484282 A219950607
				US 1995-485458 A219950607
	US 5705385	A	19980106	US 1995-485458 19950607
	US 5981501	A	19991109	US 1995-484282 19950607
	CA 2222328	AA	19961219	CA 1996-2222328 19960606
				US 1995-484282 A 19950607
				US 1995-485458 A 19950607
	US 6534484	B1	20030318	US 1999-436933 19991108
				US 1995-484282 A119950607
	US 6586410	B1	20030701	US 2000-566700 20000508
				US 1995-484282 A219950607
				US 1995-485458 A219950607
				US 1996-660025 A119960606
				US 1999-431594 A119991101
	US 2002192651	A1	20021219	US 2001-875805 20010605
				US 1995-484282 A219950607
				US 1995-485458 A219950607
				US 1996-660025 A119960606
				US 1999-431594 A119991101
				US 2000-566700 A120000508
	US 2003181410	A1	20030925	US 2003-374673 20030224
				US 1995-484282 A119950607
				US 1999-436933 A119991108

AB Novel nucleic acid-carrying liposomes useful for in vitro or in vivo gene transfer are described. These liposomes are easy to prepare as a reproducible and homogeneous sample, have a high capacity for DNA, are serum-stable, and protect DNA from intracellular degradation after uptake and can be formed using either detergent dialysis methods or methods which utilize organic solvents. Upon removal of a solubilizing component (i.e., detergent or an organic solvent) the lipid-nucleic acid complexes form particles wherein the nucleic acid is serum-stable and is protected from degradation Detergents with a CMC of 20-50 mM are used. The particles thus formed have access to extravascular sites and target cell populations and

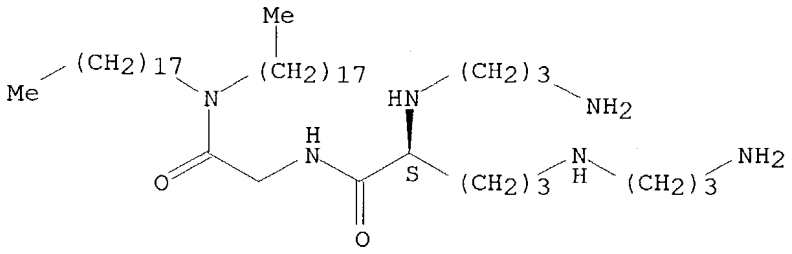
are suitable for the therapeutic delivery of nucleic acids. Optimization expts. for lipid composition and serum stability are reported. Mice injected with a reporter plasmid carrying a CAT reporter gene incorporated into liposomes of the invention showed significant expression of the gene in spleen, liver and lung, with the level and duration of expression functions of lipid composition

IT **124050-77-7,** Transfectam
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(liposomes containing; liposomes suitable for in vivo delivery of nucleic acids into mammalian cells and methods for their preparation)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 98 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:16096 CAPLUS

DN 126:148318

TI Optimized galenics improve in vitro gene transfer with cationic molecules up to 1000-fold

AU Boussif, O.; Zanta, M. A.; Behr, J.-P.

CS Lab. Chim. Genetique, Univ. Louis Pasteur, Illkirch, F-67401, Fr.

SO Gene Therapy (1996), 3(12), 1074-1080
CODEN: GETHEC; ISSN: 0969-7128

PB Stockton

DT Journal

LA English

AB Reproducible and optimized complex formation between polyanionic DNA and a polycationic vector is a key aspect of nonviral gene transfer systems. To this end, several factors relevant to in vivo delivery have been tested repeatedly on several cell types. Gene transfer with a lipopolyamine (transfectam) in the presence of serum was increased over 10-fold by sequential addition of the lipid to DNA. Paradoxically, high complex concns. (>200 μg DNA/mL) led to large enhancements too, which points to the fact that formation of productive complexes is a slow process. Each parameter more than compensates for the decreased efficiency generally observed with nonviral vectors in serum. Transfectam and PEI (polyethylenimine)-mediated transfection also improved after mild centrifugation of the complexes on to the cells. These individual factors were shown to be essentially multiplicative, leading altogether to approx. a 1000-fold transfection increase with a luciferase reporter gene. Finally, 25 cell lines and primary cells (including fibroblasts, hepatocytes and endothelial cells) were successfully transfected over a five orders-magnitude efficiency range. From this large set of data, a general relation between the overall transfection level (as measured by

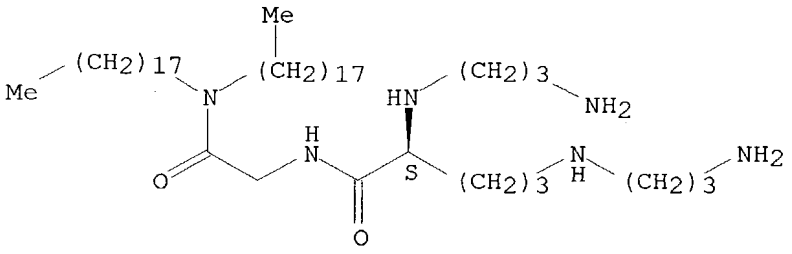
luciferase reporter gene expression) and the fraction of transfected cells (histochem. stained for β-galactosidase) could be inferred. Finally, transfectam and PEI displayed similar trends over this large range of efficiencies, which reinforces the hypothesis of a common transfection mechanism where the key endosome-releasing step occurs through a proton sponge effect.

IT **124050-77-7,** Transfectam
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(optimized pharmaceutics improve in vitro gene transfer with cationic mols. up to 1000-fold)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 99 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:663150 CAPLUS

DN 125:295404

TI Folding and aggregation of DNA chains induced by complexation with lipospermine: formation of a nucleosome-like structure and network assembly

AU Yoshikawa, Yuko; Emi, Nobuhiko; Kanbe, Toshio; Yoshikawa, Kenichi; Saito, Hidehiko

CS Graduate School of Human Informatics, Nagoya University, Nagoya, 464-01, Japan

SO FEBS Letters (1996), 396(1), 71-76
CODEN: FEBLAL; ISSN: 0014-5793

PB Elsevier

DT Journal

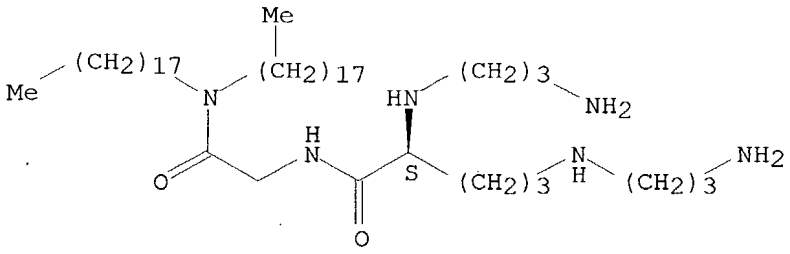
LA English

AB Dioctadecylamidoglycylspermine (DOGS) is a cationic lipid vector capable of efficiently introducing DNA into various eukaryotic cells. We investigated the higher-order structure of the DNA/DOGS complex using fluorescence and electron microscopy. Our results show that the DNA/DOGS complex exhibits a nucleosome-like structure in which DNA wraps around an aggregate of DOGS mols. In addition, DNA/DOGS complexes tend to associate with each other to form network structures. The resulting network assembly may play a role in effective gene transfection.

IT **124050-77-7D,** DOGS, DNA complexes
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(folding and aggregation of DNA chains induced by complexation with lipospermine: formation of a nucleosome-like structure and network

assembly)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 100 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:659315 CAPLUS
DN 125:284965
TI A dry powder formulation for gene therapy
IN Huang, Leaf; Sorgi, Frank L.
PA University of Pittsburgh, USA
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

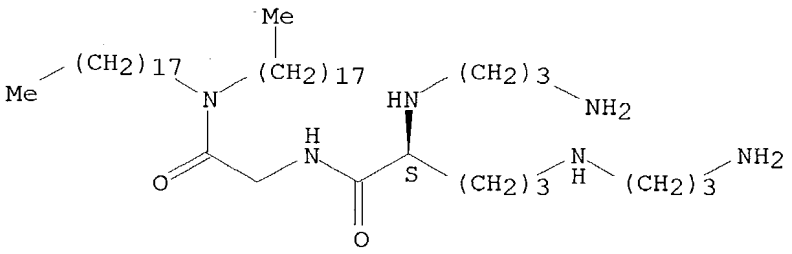
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9627393	A1	19960912	WO 1996-US2681	19960307
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
				US 1995-400089	19950307
	AU 9654177	A1	19960923	AU 1996-54177	19960307
				US 1995-400089	19950307
				WO 1996-US2681	19960307

AB Gene therapy using a non-viral vector often requires the administration of large amts. of DNA or RNA dissolved in a solution of relatively small volume The invention provides a dry powder formulation which contains a lyophilized DNA/liposome complex, a lyophilized RNA/liposome complex, a lyophilized oligonucleotide/liposome complex or a lyophilized protein/liposome complex. The dry powder is suitable for airway delivery or topical administration as an aerosol. The dry powder can be easily reconstituted with water and is active in gene transfer in vitro and in vivo. The potency of gene transfer of the dry powder was at least 50-fold higher than that of a liquid formulation of similar composition The composition, method of preparation and method of use are described.

IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dry powder formulation containing lyophilized liposome complexes for airway or topical delivery of DNA, RNA, oligonucleotides, or proteins)

RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 101 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:609959 CAPLUS
DN 125:240223
TI Nucleic acid-containing compositions containing transfecting agents and nucleic acid condensing agents and their use in transfection
IN Byk, Gerardo; Scherman, Daniel; Schwartz, Bertrand
PA Rhone-Poulenc Rorer S.A., Fr.
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9625508	A1	19960822	WO 1996-FR248	19960215
W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
			FR 1995-1865 A	19950217
FR 2730637	A1	19960823	FR 1995-1865	19950217
FR 2730637	B1	19970328		
CA 2211162	AA	19960822	CA 1996-2211162	19960215
			FR 1995-1865 A	19950217
AU 9648353	A1	19960904	AU 1996-48353	19960215
AU 706643	B2	19990617		
			FR 1995-1865 A	19950217
			WO 1996-FR248 W	19960215
BR 9607383	A	19971125	BR 1996-7383	19960215
			FR 1995-1865 A	19950217
			WO 1996-FR248 W	19960215
EP 809705	A1	19971203	EP 1996-904146	19960215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI				
			FR 1995-1865 A	19950217
			WO 1996-FR248 W	19960215
JP 11500431	T2	19990112	JP 1996-524719	19960215
			FR 1995-1865 A	19950217
			WO 1996-FR248 W	19960215
SK 281543	B6	20010409	SK 1997-1118	19960215

				FR 1995-1865 A 19950217
				WO 1996-FR248 W 19960215
	ZA 9601255	A	19960827	ZA 1996-1255 19960217
				FR 1995-1865 A 19950217
	NO 9703745	A	19970814	NO 1997-3745 19970814
				FR 1995-1865 A 19950217
				WO 1996-FR248 W 19960215
	FI 9703363	A	19970815	FI 1997-3363 19970815
				FR 1995-1865 A 19950217
				WO 1996-FR248 W 19960215
	US 5945400	A	19990831	US 1997-894339 19970815
				FR 1995-1865 A 19950217
				WO 1996-FR248 W 19960215
	US 6200956	B1	20010313	US 1999-306044 19990506
				FR 1995-1865 A 19950217

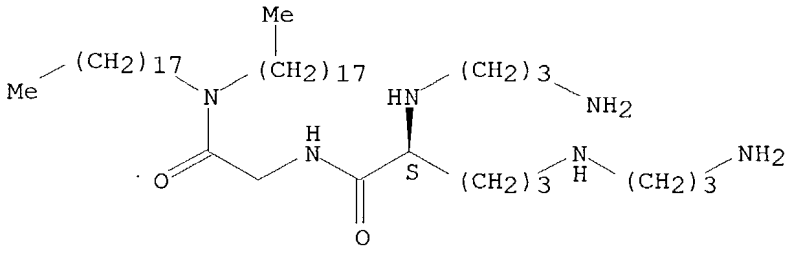
AB Pharmaceutical composition useful for transfecting a nucleic acid and characterized in that it contains, in addition to said nucleic acid, at least one transfecting agent and a compound causing the condensation of said nucleic acid, wherein said compound is totally or partly derived from a histone, a nucleolin, a protamine and/or a derivative thereof. The use of said composition for transferring nucleic acids in vitro, ex vivo and/or in vivo is also described. This composition permits less nucleic acid to be used and improves efficiency of transfection.

IT **124050-77-7,** DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nucleic acid-containing compns. containing transfecting agents and nucleic acid condensing agents and their use in transfection)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 102 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:559231 CAPLUS
DN 125:238547
TI Effect of amniotic fluid on cationic lipid-mediated transfection and retroviral infection
AU Douar, A.-M.; Themis, M.; Sandig, V.; Friedmann, T.; Coutelle, C.
CS Imperial College, Medical School at St Mary's, London, UK
SO Gene Therapy (1996), 3(9), 789-796
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton
DT Journal
LA English

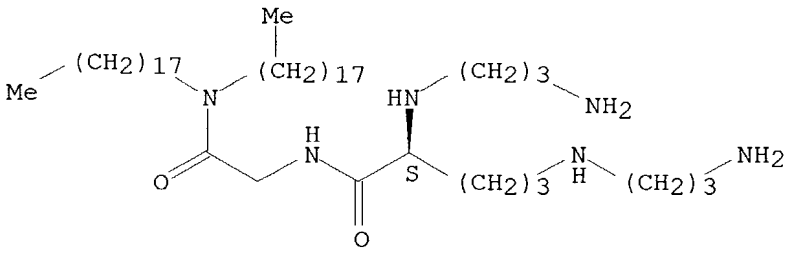
AB In preparation for fetal gene therapy by intra-amniotic gene application, we have investigated the effect of amniotic fluid on several gene transfer systems. In vitro lipofection of embryonically derived 3T3 cells by several of the tested cationic lipids decreases in the presence of human amniotic fluid, while two formulations, Lipid 67 and Tfx-50, remain highly active. As some body fluids are known to inactivate most retroviral vectors, we investigated the influence of amniotic fluid on the efficiency of infection of 3T3 cells by murine leukemia virus (MoMLV)-based vectors, including amphotropic and ecotropic retrovirus, and a vesicular stomatitis virus G (VSV-G) glycoprotein pseudotyped retroviral vector. All showed a decrease of infectivity from 21 to 56% in the presence of amniotic fluid. The ecotropic retrovirus is the most infectious under normal conditions as well as in amniotic fluid. Our results suggest that intra-amniotic injection may allow efficient gene transfer using either amniotic fluid-resistant cationic lipids or ecotropic retroviral vectors in a murine in vivo model for fetal gene therapy. The VSV-G-pseudotyped vector, although displaying a decrease of infectivity, remains of great interest for gene delivery, because of its broad host range and because of the high virus titers achievable. Finally, a baculovirus-based vector shows no decrease of its infectivity and does not seem to be affected by amniotic fluid but has only low infectivity on the tested fetal fibroblast cell line.

IT **124050-77-7D**, Transfectam, DNA complexes
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(amniotic fluid effect on cationic lipid-mediated transfection and retroviral infection in relation to fetal gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 103 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:545287 CAPLUS

DN 125:321131

TI Quantitative investigation of the interactions between inositol-tris(phosphates) and polyamines

AU Mernissi-Arifi, Khalid; Zenkouar, Mohamed; Schlewer, Gilbert; Spiess, Bernard

CS Lab. Pharm. Mol., CNRS, Illkirch Cedex, 67401, Fr.

SO Journal of the Chemical Society, Faraday Transactions (1996), 92(17), 3101-3107
CODEN: JCFTEV; ISSN: 0956-5000

PB Royal Society of Chemistry

DT Journal

LA English

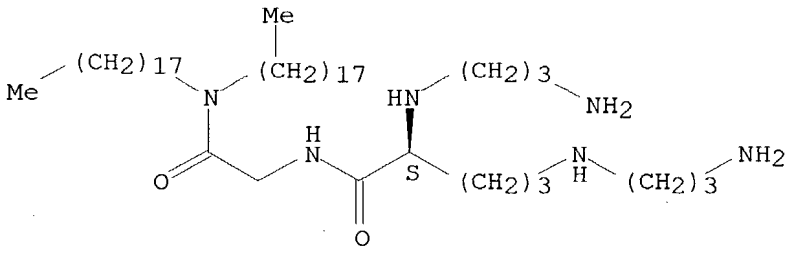
AB Inositol phosphates (IPs) provide particularly favorable stereochem. for the formation of complexes with polyammonium salts which may exist in their biol. environment. In the present work, the authors report the study of the complexation of spermine by 4 inositol tris(phosphates) differing by the position of the phosphate groups, i.e., D-myo-inositol-1,2,6-tris(phosphate) [Ins(1,2,6)P3], (±)-myo-inositol-4,5,6-tris(phosphate)[Ins(4,5,6)P3],(±)-myo-inositol-1,3,5-tris(phosphate) [Ins(1,3,5)P3], or by the configuration of the OH groups: (±)-chiro-inositol-1,2,6-tris(phosphate) [chiro-Ins(1,2,6)P3]. Complexation studies of various linear or macrocyclic polyamines, such as spermidine, dioctadecylamidoglycyl spermine (DOGS), and A618C6-1, with Ins(1,2,6)-P3, are also included. All of the studies were carried out at 25° in a 0.1 mol dm-3 tetramethylammonium toluene-p-sulfonate (Me4NOTs) medium. By performing 31P NMR titrns., the protons of the complexes were precisely localized and, therefore, the stepwise complexation consts. could be unambiguously calculated The consts. of the spermine-IP complexes tended to be linearly related to the basicity of the phosphate groups, which depended on the position of the phosphates around the myo-inositol ring. The highest stabilities were achieved for the IPs carrying 3 vicinal phosphates. As expected, electrostatic forces governed the stability of the complexes since the number of charges, the neg. charge d. of the IP, and the local dielec. constant largely influenced the strength of the interaction. Spermine and spermidine formed with the IP's complexes which are stable enough to play a major biol. role.

IT **124050-77-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(quant. investigation of interactions between inositol tris(phosphates) and polyamines)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 104 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:541238 CAPLUS

DN 125:165692

TI Methods and compositions for inducing mucosal immune responses

IN Mitchell, William M.

PA Vanderbilt University, USA

SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 9621356	A1	19960718	WO 1995-US8374	19950703
	W: AU, CA, JP				
				US 1995-372429 A	19950113
	US 6630455	B1	20031007	US 1995-372429	19950113
	CA 2209064	AA	19960718	CA 1995-2209064	19950703
				US 1995-372429 A	19950113
	AU 9529587	A1	19960731	AU 1995-29587	19950703
	AU 700519	B2	19990107		
				US 1995-372429 A	19950113
				WO 1995-US8374 W	19950703

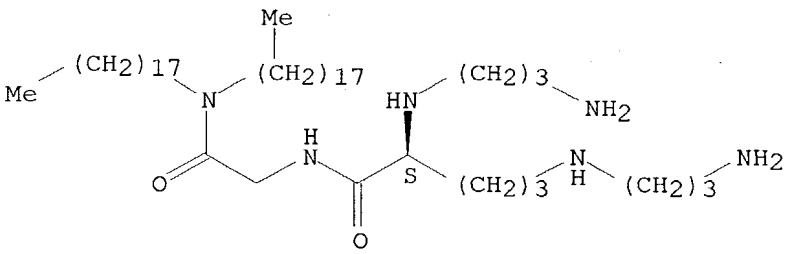
AB The invention provides a method of inducing a mucosal immune response in a subject, comprising administering to the mucosa of the subject an amount of antigen-encoding DNA effective to induce a mucosal immune response complexed to a transfection-facilitating lipospermine or lipospermidine. In the method of inducing a mucosal immune response, the antigen-encoding DNA can encode an antigen that is expressed on the surface of infected cells during the course of infection. DNA encoding the envelope glycoproteins of viral pathogens is used in the present method. Lipospermines and lipospermidines are bifunctional mols. consisting of one or more hydrophobic chains covalently linked to a cationic grouping in which there is coordination of three or more amide hydrogens with a phosphate oxygen of the DNA chain forming an ionic charge complex. One preferred example of a lipospermine is DOGS (dioctadecylamidoglycylspermin e). The invention also provides a composition, comprising an amount of DNA encoding an envelope antigen or envelope-associated antigen of a pathogen complexed to a lipospermine. More specifically, the invention provides a composition, comprising an amount of DNA encoding an envelope antigen of HIV complexed to a lipospermine.

IT **124050-77-7**
RL: MOA (Modifier or additive use); USES (Uses)
(vaccine composition comprising antigen-containing DNA and transfection-facilitating lipospermine or lipospermidine for inducing mucosal immune responses)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 105 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:540285 CAPLUS

DN 125:213599

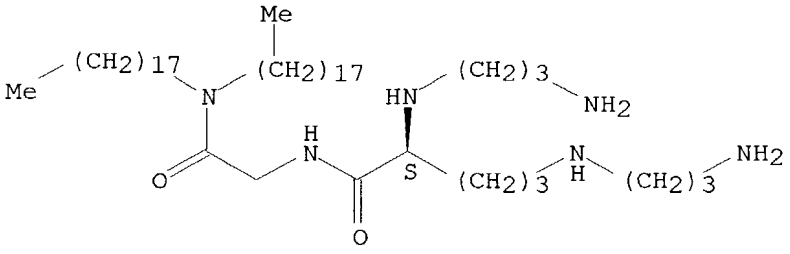
TI Efficiency of different lipofection agents in Drosophila S-2 cells

AU Soendergaard, Leif

CS Institute of Molecular Biology, University of Copenhagen, Copenhagen, DK-1353, Den.

SO In Vitro Cellular & Developmental Biology: Animal (1996), 32(7), 386-387
CODEN: IVCAED; ISSN: 1071-2690
PB Society for In Vitro Biology
DT Journal
LA English
AB The effectiveness of different com. available transfection agents was compared with that of calcium phosphate in transient expression expts. in Drosophila melanogaster S-2 cells. Although all the com. available agents allowed more efficient DNA uptake than the calcium phosphate precipitation method,
Lipofectin lipid micelles proved to be the most efficient method. Lipofectin was also the most efficient agent in making permanent, transfected cell lines (no data).
IT **124050-77-7**, Transfectam
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(efficiency of different lipofection agents in Drosophila S-2 cells)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 106 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:537664 CAPLUS
DN 125:177510
TI Method for inactivating non-enveloped viruses using a virucide-potentiating agent
IN Zepp, Charles M.; Heefner, Donald L.
PA Hemasure Inc., USA
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9620592	A1	19960711	WO 1996-US271	19960102
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN				
			US 1995-368780	19950104

US 5663043	A	19970902	US 1995-368780	19950104
AU 9648966	A1	19960724	AU 1996-48966	19960102
			US 1995-368780	19950104
			WO 1996-US271	19960102

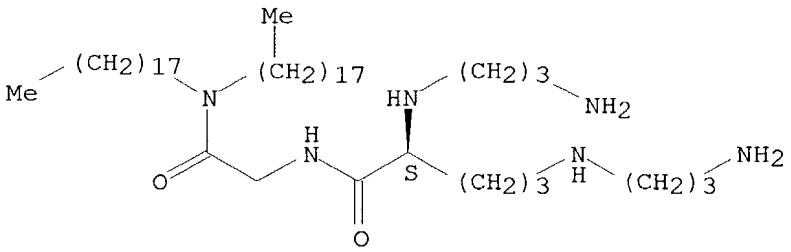
AB A method for inactivating non-enveloped viruses in e.g. whole blood or a blood product comprises adding a photoactivating virucide (psoralens, hypericin, methylene blue, and toluidine blue) and a virucide-potentiating agent (a cationic lipopolyamine, such as dioctadecylamidoglycylspermine) and activating the virucide.

IT **124050-77-7,** Transfectam
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic lipopolyamines as virucide-potentiating agents for inactivation of non-enveloped viruses)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 107 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:532675 CAPLUS

DN 125:185410

TI Activation of the complement system by synthetic DNA complexes: A potential barrier for intravenous gene delivery

AU Plank, Christian; Mechtler, Karl; Szoka, Francis C. Jr.; Wagner, Ernst

CS School Pharmacy, University California, San Francisco, CA, 94143-0446, USA

SO Human Gene Therapy (1996), 7(12), 1437-1446
CODEN: HGTHE3; ISSN: 1043-0342

PB Liebert

DT Journal

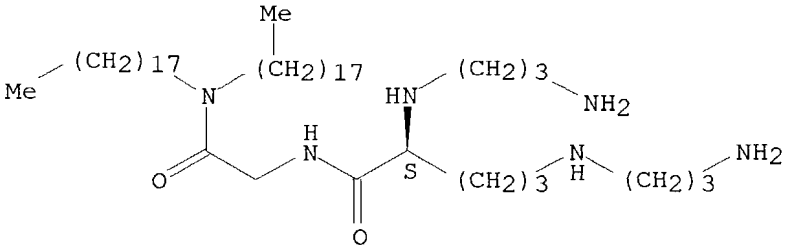
LA English

AB We have examined the complement-activating properties of synthetic cationic mols. and their complexes with DNA. Commonly used gene delivery vehicles include complexes of DNA with polylysine of various chain lengths, transferrin-polylysine, a fifth-generation poly(amidoamine) (PAMAM) dendrimer, poly(ethyleneimine), and several cationic lipids (DOTAP, DC-Chol/DOPE, DOGS/DOPE, and DOTMA/DOPE). These agents activate the complement system to varying extents. Strong complement activation is seen with long chain polylysines, the dendrimer, poly(ethyleneimine), and DOGS (half-maximal at about 3 μM amine content in the assay used). Compared to these compds., the other cationic lipids (in liposome formulations) are weak activators of the complement system (half-maximal ≈50-100 μM pos. charge in assay). Complement activation by polylysine is strongly dependent on the chain length. Short-chain oligolysines are comparable to cationic lipids in their activation of complement. Incubation of these compds. with DNA to form complexes

reduces complement activation in virtually all cases. The degree of complement activation by DNA complexes is strongly dependent on the ratio of polycation and DNA (expressed as the charge ratio) for polylysine, dendrimer, poly(ethyleneimine), and DOGS. To a lesser degree, charge ratio also influences complement activation by monovalent cationic lipid-DNA complexes. For polylysine-DNA complexes, complement activation can be considerably reduced by modifying the surface of preformed DNA complexes with polyethyleneglycol (half-maximal ≈ 20 μM amine content). The data suggests that, by appropriate formulation of DNA complexes, complement activation can be minimized or even avoided. These findings should facilitate the search for DNA complex formulations appropriate for reproducible i.v. gene delivery.

IT **124050-77-7,** DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DOGS/DOPE complexes with DNA; activation of the complement system by synthetic DNA complexes: a potential barrier for i.v. gene delivery)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 108 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:404241 CAPLUS
DN 125:77806
TI In vitro and in vivo liposome-mediated gene transfer leads to human MDR1 expression in mouse bone marrow progenitor cells
AU Aksentijevich, Ivan; Pastan, Ira; Lunardi-Iskandar, Yanto; Gallo, Robert C.; Gottesman, Michael M.; Thierry, Alain R.
CS Laboratory of Cell Biology, National Cancer Institute, Bethesda, MD, 20892-4255, USA
SO Human Gene Therapy (1996), 7(9), 1111-1122
CODEN: HGTHE3; ISSN: 1043-0342
PB Liebert
DT Journal
LA English
AB The ability to select bone marrow cells (BMC) expressing a selectable gene that confers resistance to anticancer drugs would be useful to protect bone marrow during chemotherapy. The human multidrug resistance (MDR1) gene encodes a 170-kD glycoprotein (P-gp), an ATP-dependent transmembrane efflux pump for many different cytotoxic drugs. In this work, we demonstrate efficient expression of the human MDR1 gene in mouse BMC after transfection with a liposomal delivery system (DLS-liposomes). The human MDR1 cDNA expression plasmid (pHaMDR1/A) was encapsulated in DLS-liposomes and delivered to mouse BMC using two approaches: (i) in vitro transfection of BMC followed by bone marrow transplantation and (ii) in vivo direct systemic gene transfer. After both the in vitro and the in vivo

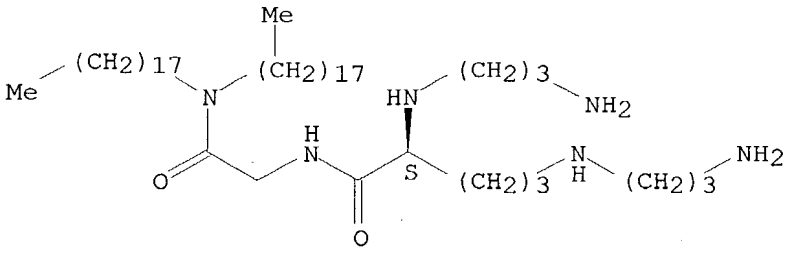
approaches, polymerase chain reaction (PCR) anal. confirmed that the human MDR1 gene was successfully transfected to bone marrow, spleen, and peripheral blood (PB) cells, with the human MDR1 gene detected in BMC for up to 30 days after bone marrow transplantation and 28 days after direct systemic administration. Efflux studies using rhodamine-123 demonstrated function of the MDR1 gene product in the in vitro-transfected BMC. Flow cytometry studies using the human MDR1-specific MRK16 monoclonal antibody confirmed the presence of P-gp in BMC after in vitro transfection, as well as in BMC from reconstituted or in vivo-transfected mice. Transgene expression in both lymphoid and myeloid subpopulations of BMC was demonstrated. Colony-forming units (CFU-Mix) were obtained after exposure of BMC to LDs of vincristine, demonstrating functional expression of the MDR1 gene in hematopoietic progenitor cells for up to 1 mo.

IT **124050-77-7**, DOGS
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DLS liposomes from DOGS and; in vitro and in vivo liposome-mediated gene transfer leads to human MDR1 expression in mouse bone marrow progenitor cells)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 109 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:377249 CAPLUS

DN 125:26227

TI Gene transfer from maternal bodies to embryos and its application in gene therapy or breeding

IN Tsukamoto, Makoto; Ochiya, Takahiro; Yoshida, Sho; Sugimura, Takashi; Terada, Masaaki

PA Daiichi Pharmaceutical Co., Ltd., Japan; Terada, Masaaki

SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9611713	A1	19960425	WO 1995-JP1734	19950831
	W: AU, BR, CA, CN, JP, MX, NZ, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
				JP 1994-249469 A	19941014
	CA 2202529	AA	19960425	CA 1995-2202529	19950831
				JP 1994-249469 A	19941014
	AU 9533547	A1	19960506	AU 1995-33547	19950831
	AU 710583	B2	19990923		

				JP 1994-249469 A 19941014
				WO 1995-JP1734 W 19950831
EP 782862		A1	19970709	EP 1995-930018 19950831
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
				JP 1994-249469 A 19941014
				WO 1995-JP1734 W 19950831
CN 1166788		A	19971203	CN 1995-195651 19950831
				JP 1994-249469 A 19941014
BR 9509512		A	19971230	BR 1995-9512 19950831
				JP 1994-249469 A 19941014
				WO 1995-JP1734 W 19950831
NZ 334479		A	20001027	NZ 1995-334479 19950831
				JP 1994-249469 A 19941014
				NZ 1995-291892 A119950831
US 6060081		A	20000509	US 1997-817093 19970521
				JP 1994-249469 A 19941014
				WO 1995-JP1734 W 19950831
US 6471990		B1	20021029	US 1999-475086 19991230
				JP 1994-249469 A 19941014
				WO 1995-JP1734 W 19950831
				US 1997-817093 A119970521

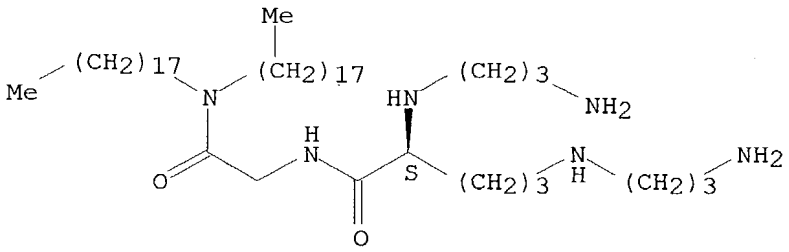
AB A genetic method for treating diseases at embryonal stages by introducing a genetic composition containing a transporter substance through maternal bodies into the embryo cells is described. The genetic composition, when administered to the maternal body, serves to prevent the genetic deficiency occurred in the fetuses. It is also possible by conducting an animal experiment for introducing an unknown gene at an embryonal stage to elucidate the function of the gene in development. The composition can be utilized also for breeding pet animals, industrial animals and livestock. I.v. administration of SV40-CAT plasmid into a pregnant mouse along with dioctadecyl amidoglycylspermine, a transporter, and de novo expression of the CAT (chloramphenicol acetyltransferase) gene in the embryos were demonstrated.

IT **124050-77-7**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(gene transporter substance; gene transfer from maternal bodies to embryos and application in gene therapy or breeding)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

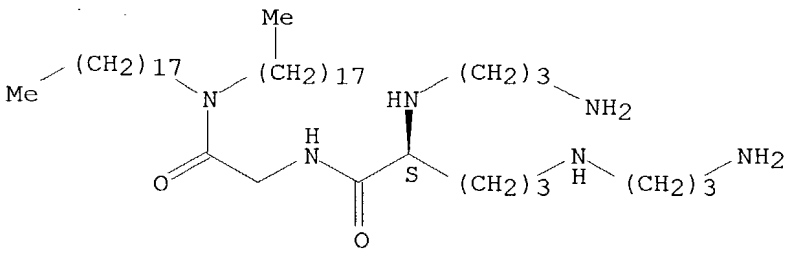


L8 ANSWER 110 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:368202 CAPLUS

DN 125:50282
TI Gene transfer in hepatocarcinoma cell lines: in vitro optimization of a virus-free system
AU Ghoumari, A. M.; Rixe, O.; Yarovoi, S. V.; Zerrouqi, A.; Mouawad, R.; Poynard, T.; Opolon, P.; Khayat, D.; Soubrane, C.
CS Lab. Service Oncologie Medicale, Hop. de la Pitie-Salpetriere, Paris, 75013, Fr.
SO Gene Therapy (1996), 3(6), 483-490
CODEN: GETHEC; ISSN: 0969-7128
PB Stockton
DT Journal
LA English
AB Many approaches exist for hepatic gene delivery, including viral vectors and non-viral vectors. In this study, we tested a panel of liposomes to transfer pAG0, a plasmid containing one copy of herpes simplex virus (HSVtk) gene, and pYED11, a plasmid containing two copies of the HSVtk gene, into a murine hepatocarcinoma cell line (Hepa 1-6) and a human hepatocarcinoma cell line (Hep-G2). The efficiency of gene delivery and expression was characterized by β=galactosidase staining, flow cytometric anal. and quant. lacZ activity. Different combinations of liposomes and DNA and the ratio of the concentration of liposome to DNA were tested. The efficient transfer was shown with DOTAP followed by transfectam and lipofectamine. Under these conditions, we tested the cytotoxicity of ganciclovir (GCV) exposure on Hepa 1-6 and Hep-G2 transfected sep. with liposome-pAG0 and liposome-pYED11 complexes. This study demonstrates the in vitro efficacy of each liposome tested to transduce the HSVtk gene into hepatocarcinoma cell lines. The transfer of two copies of the HSVtk gene rendered cells 1.5 times more sensitive to GCV than cells transduced by pAG0 as compared to controls. This was achieved most efficiently by the DOTAP-pYED11 complex. Thus, pYED11 may be considered as an alternative to pAG0 as a gene transfer vector.
IT **124050-77-7**, Transfectam
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(gene transfer in hepatocarcinoma cell lines: in vitro optimization of a virus-free system)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

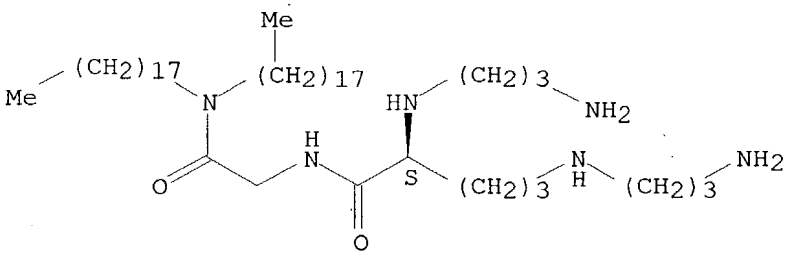
Absolute stereochemistry.



L8 ANSWER 111 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:333351 CAPLUS
DN 125:67534
TI DOSPER liposomal transfection reagent: a reagent with unique transfection properties

AU Buchberger, B.; Fernholz, E.; Bantle, E.; Weigert, M.; Borowski, E.; Eltz, H. v.d.; Hinzpeter, M.
CS Boehringer Mannheim GmbH, Penzberg, Germany
SO Biochemica (1996), (2), 7-10
CODEN: BIOCFE; ISSN: 0946-1310
PB Boehringer Mannheim
DT Journal
LA English
AB A novel polycationic lipid, DOSPER [01,3-dioleoyloxy-2-(6-carboxyspermyl)-Pr amide], was synthesized, formulated, and characterized for its applicability as a liposomal transfection reagent. Compared to other com. available liposomal reagents, it showed superior transfection efficiency. Lipofection with DOSPER Liposomal Transfection Reagent was equally effective in the presence or absence of serum. Interestingly, optimal conditions were obtained at relatively low concns., which is cost-effective and beneficial with respect to cytotoxic side effects associated with most liposomal reagents.
IT **124050-77-7**, DOGS
RL: ADV (Adverse effect, including toxicity); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transfection system; characterization of DOSPER liposomal transfection reagent)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 112 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:332672 CAPLUS
DN 124:352703
TI A liposomal delivery system for biologically active agents
IN Thierry, Alain R.
PA United States Dept. of Health and Human Services, USA
SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9603977	A1	19960215	WO 1995-US9867	19950804

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,

LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

			US 1994-286730 A219940805	
US 5908635	A	19990601	US 1994-286730	19940805
CA 2196780	AA	19960215	CA 1995-2196780	19950804
			US 1994-286730 A	19940805
AU 9532379	A1	19960304	AU 1995-32379	19950804
AU 697343	B2	19981001		
			US 1994-286730 A	19940805
			WO 1995-US9867 W	19950804
EP 774959	A1	19970528	EP 1995-928732	19950804
EP 774959	B1	19981028		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

			US 1994-286730 A	19940805
			WO 1995-US9867 W	19950804
AT 172636	E	19981115	AT 1995-928732	19950804
			US 1994-286730 A	19940805
ES 2123284	T3	19990101	ES 1995-928732	19950804
			US 1994-286730 A	19940805
US 6110490	A	20000829	US 1996-522246	19960129
			US 1994-286730 A219940805	
			WO 1995-US9867 W	19950804

PATENT FAMILY INFORMATION:

FAN 2000:606754

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6110490	A	20000829	US 1996-522246	19960129
			US 1994-286730 A219940805	
			WO 1995-US9867 W	19950804
US 5908635	A	19990601	US 1994-286730	19940805
WO 9603977	A1	19960215	WO 1995-US9867	19950804

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT

RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 1994-286730 A219940805

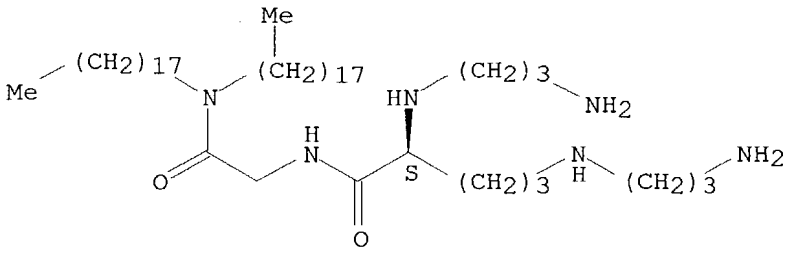
AB The present invention is directed to a liposomal preparation which is based on specific lipid components. The specific lipid components provide a highly efficient and stable delivery system for nucleic acids. Consequently, one embodiment of the invention provides the liposomal prepns. which are suitable for use in gene therapy. Thus, liposomes were formed by mixing spermine-5-carboxyglycinedioctadecylamide and dioleoyl phosphatidylethanolamine, then nucleic acids were incubated with the liposomes to form complexes.

IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(liposomal delivery system for gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 113 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:256736 CAPLUS
DN 124:281099
TI Complexes of nucleic acids and cationic polymers or macromolecules for use in gene therapy
IN Behr, Jean-Paul; Boussif, Otmane; Demeneix, Barbara; Lezoualch, Franck; Mergny, Mojgan; Scherman, Daniel
PA Rhone-Poulenc Rorer S.A., Fr.
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9602655	A1	19960201	WO 1995-FR914	19950707
	W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TT, UA, UG, US, UZ, VN				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
				FR 1994-8735 A	19940713
	FR 2722506	A1	19960119	FR 1994-8735	19940713
	FR 2722506	B1	19960814		
	CA 2194797	AA	19960201	CA 1995-2194797	19950707
				FR 1994-8735 A	19940713
	AU 9529307	A1	19960216	AU 1995-29307	19950707
				FR 1994-8735 A	19940713
				WO 1995-FR914 W	19950707
	EP 770140	A1	19970502	EP 1995-925026	19950707
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
				FR 1994-8735 A	19940713
				WO 1995-FR914 W	19950707
	JP 10502918	T2	19980317	JP 1995-504741	19950707
				FR 1994-8735 A	19940713
				WO 1995-FR914 W	19950707
	ZA 9505849	A	19960221	ZA 1995-5849	19950713
				FR 1994-8735 A	19940713
	NO 9700049	A	19970107	NO 1997-49	19970107
				FR 1994-8735 A	19940713
				WO 1995-FR914 W	19950707
	FI 9700115	A	19970110	FI 1997-115	19970110
				FR 1994-8735 A	19940713
				WO 1995-FR914 W	19950707
	US 6013240	A	20000111	US 1997-765679	19970228
				FR 1994-8735 A	19940713

				WO 1995-FR914	W 19950707
AU 9944441	A1	19991014		AU 1999-44441	19990813
AU 737314	B2	20010816			
				FR 1994-8735	A 19940713
				AU 1995-29307	A319950707

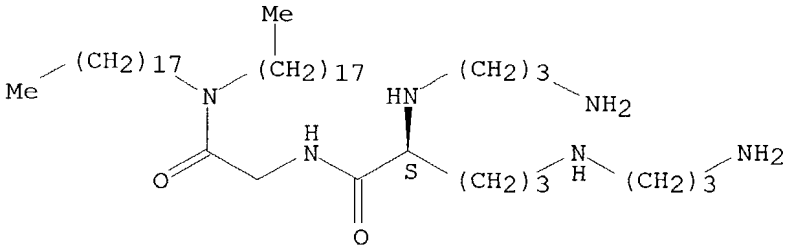
AB Nucleic acids are complexed with cationic polymers, particularly polyalkylenimines, for gene therapy, particularly for in vivo nucleic acid transfer. Other cationic polymers and macromols. that may be used include cationic proteins and lipids. The method is demonstrated using these complexes to introduce a reporter gene (luciferase) into fibroblasts. After optimization, a complex of a reporter plasmid (pCMV-Luc) and PEI800K (polyethyleneimine with an average mol. weight of 800,000) was introduced into the brains of neonatal mice. Mice injected with the complex showed significantly higher levels of luciferase activity in the brain than did control (naked DNA) mice.

IT **124050-77-7D**, complexes with DNA
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes of nucleic acids and cationic polymers or macromols. for use in gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 114 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:200663 CAPLUS

DN 124:307468

TI In vitro and in vivo gene transfer to pulmonary cells mediated by cationic liposomes

AU Fortunati, Elisabetta; Bout, Abraham; Zanta, Maria Antonia; Valerio, Dinko; Scarpa, Maurizio

CS Centro per il Trasferimento Genico, Department of Pediatrics, CRIBI Biotechnology Center, Padua, 35100, Italy

SO Biochimica et Biophysica Acta (1996), 1306(1), 55-62
CODEN: BBACAQ; ISSN: 0006-3002

PB Elsevier

DT Journal

LA English

AB Cationic liposomes have been proposed as alternative to adenovirus in the treatment of cystic fibrosis lung disease. Therefore, we have investigated the efficiency of two lipid mixts. in mediating gene transfer in in vitro and in vivo models. The cationic lipid DOTMA [N-(1-(2,3(dioleyloxy)propyl)-n,n,n-trimethylammonium chloride)] and DOGS (dioctadecylamidoglycylspermine) were used in combination with the neutral lipid DOPE (dioleoylphosphatidylethanolamine). The relative transfection

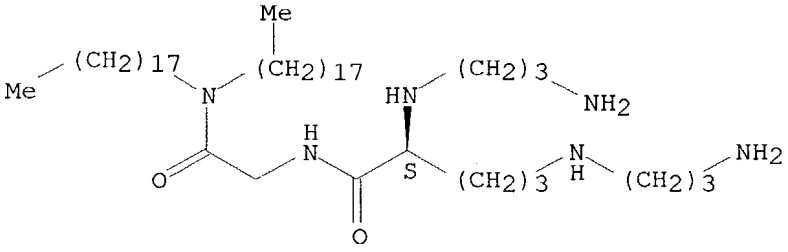
efficiencies of the two cationic liposomes were tested using the bacterial β-galactosidase (lacZ) and the firefly luciferase genes. Gene expression was detected in both cell lines and primary culture of rhesus monkey airway epithelium after transfection with plasmid DNA complexed with DOGS/DOPE or DOTMA/DOPE. Transfection efficiency of both types of lipids was higher in the mouse fibroblast 3T3 cell line as compared to human carcinoma A549 cells and primary epithelial cultures. Administration of DNA-liposome complexes via intratracheal instillation resulted in expression of the lacZ and luciferase marker gene in the mouse airways. In vivo transfection mediated by both types of liposomes were proven to be far less efficient than adenovirus treatment.

IT **124050-77-7**, DOGS
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vitro and in vivo gene transfer to pulmonary cells mediated by cationic liposomes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 115 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:93091 CAPLUS

DN 124:166690

TI Lipospermine-based gene transfer into the newborn mouse brain is optimized by a low lipospermine/DNA charge ratio

AU Schwartz, Bertrand; Benoist, Corinne; Abdallah, Bassima; Scherman, Daniel; Behr, Jean-Paul; Demeneix, Barbara A.

CS CNRS/Rhone Poulenc Rorer, CRVA/Biotech., Vitry-sur-Seine, Fr.

SO Human Gene Therapy (1995), 6(12), 1515-24
CODEN: HGTHE3; ISSN: 1043-0342

PB Liebert

DT Journal

LA English

AB Nonviral, plasmid-based gene transfer into somatic tissues offers the prospect of various simple and safe therapeutic possibilities as well as applications in fundamental research. Although cationic lipids display efficient transfection activities in many in vitro systems, only low success rates using these vectors in vivo have been reported. We succeeded in defining conditions providing high levels of in vivo transfection in the brains of newborn mice. Our hypothesis was that conditions favorable for in vitro transfection (highly pos. charged particles) were unlikely to be appropriate for in vivo conditions. When using the cationic lipid dioctadecylamido glycylspermine (Transfectam, DOGS) with a cytomegalovirus (CMV)-luciferase reporter gene, the best

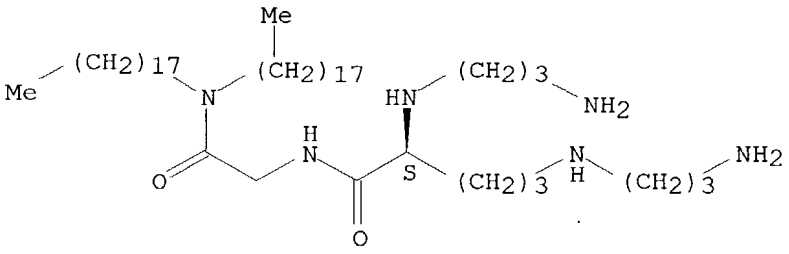
levels of transfection were obtained when using a low ratio of pos. charges (supplied by the DOGS) to neg. charges (carried by the DNA). Moreover, addition of the neutral lipid dioleoylphosphatidyl ethanolamine (DOPE) significantly enhanced transfection. Expression of the transgene diminished over time, independently of lipopolysaccharide content of the plasmid preparation used. This suggests that either a mitotic population of cells was preferentially transfected, or that promoter silencing was occurring. Histol. examination of the spatial distribution of a β-galactosidase-expressing transgene showed numerous groups of transfected cells both within the striatal parenchyma and in the paraventricular area. Thus, DNA-lipid complexes bearing overall charges close to neutrality open promising possibilities for modulating gene expression in the developing central nervous system and for therapy in the brain.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(pos. charges; lipospermine-based gene transfer into newborn mouse brain is optimized by low lipospermine/DNA charge ratio)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 116 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:89523 CAPLUS

DN 124:172978

TI Induction of mucosal anti-HIV antibodies by facilitated transfection of airway epithelium with lipospermine/DNA complexes

AU Mitchel, William M.; Rosenbloom, S. Trent; Gabriel, Jerome

CS Dep. Pathol, Vanderbilt Univ., Nashville, TN, 37232, USA

SO Immunotechnology (1995), 1(3,4), 211-19
CODEN: IOTEER; ISSN: 1380-2933

PB Elsevier

DT Journal

LA English

AB Expression of microbial protein sequences in eukaryotic cells transfected by transcriptional/translational permissive cDNA constructs can induce systemic humoral and cellular responses in vivo. Two methods of in vivo transfection have been described to date. One method uses large quantities of naked DNA injected into skeletal muscle. The second method uses relatively small quantities of DNA complexed to gold particles for ballistic penetration of the plasma membrane of keratinocytes. The major disadvantage of the holistic method is that instrumentation is required which is not generally available. The objective of this study were to determine whether the use of DNA complexed with a cationic lipopolyamine could

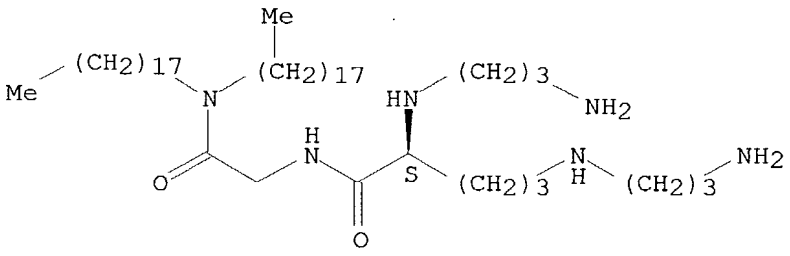
reduce the quantity of DNA required to induce systemic humoral responses following muscle transfection and whether similar DNA/lipopolyamine complexes could induced mucosal humoral responses following airway exposure. Balb/c mice were exposed by nasal aerosol or i.m. inoculation to a mammalian transcriptional/translational permissive DNA construct containing the entire sequence for the HIV-1 envelope polyprotein. Exptl. animal were further segregated by the number of exposures at 3-wk interval and whether the DNA was complexed to dioctadecylamidoglycylspermine (DOGS) at a 5:1 M charge ratio of DOGS/DNA. DOGS facilitate in vivo transfection of mouse muscle reduced the quantity of DNA required for a systemic humoral response to surface expressed HIV-envelope proteins by one order of magnitude. Exposure of airway mucosa to both 10 μg and 1 μg quantities of DNA complexed to DOGS produced systemic humoral responses to HIV-envelope as well as mucosal antibodies in pulmonary and colonic epithelial. Mol. modeling of DOGS/DNA complexes at the 5:1 charge ratio used in this study indicates that the DNA component is not exposed to aqueous solvents and may be relatively resistant to degradation under common biol. environments. Facilitated transfer of DNA by DOGS to transcriptional/translational competent cells offers several distinct advantages to the use of DNA alone. Since significantly smaller amts. of DNA are required, the potential for the induction of antibodies against DNA itself lessens the likelihood for the development of a lupus-like syndrome. More important, however, is the apparent ability to transfect mucosal cells which results in the development of specific mucosal immune responses. This procedure may allow the development of general methods for the induction of mucosal immunity at the level of entry for mucosal pathogens without the disadvantages inherent in live attenuated vectors.

IT **124050-77-7DP**, DOGS, DNA complexes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(mucosal anti-HIV antibodies induction by transfection of airway epithelium with lipospermine/DNA complexes)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 117 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:77158 CAPLUS

DN 124:166670

TI Improved lipid-mediated gene transfer into primary cultures of hippocampal neurons

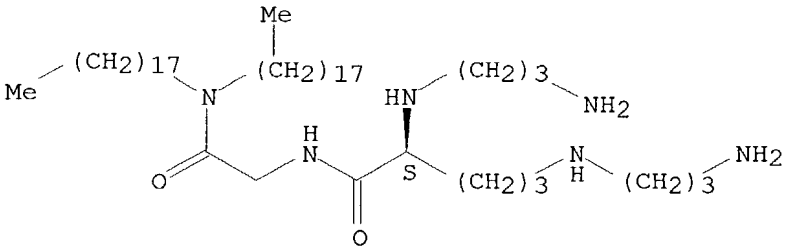
AU Kaech, Stefanie; Kim, Jae Bum; Cariola, Michael; Ralston, Evelyn

CS Bethesda, MD, 20892-4062, USA

SO Molecular Brain Research (1996), 35(1,2), 344-8

CODEN: MBREE4; ISSN: 0169-328X
PB Elsevier
DT Journal
LA English
AB We have examined lipids as transfection agents to introduce recombinant plasmids into primary cultures of rat hippocampal neurons. By modifying the protocol for transfection mediated by the com. reagent DOTAP, we were able to achieve a transfection efficiency of about 3%. Expression of various transfected gene products was sustained for several weeks in culture, the neurons developed normally and the transfected gene products were targeted to the appropriate subcellular compartment.
IT **124050-77-7**, Transfectam
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(lipid reagent showed variability between batches; improved lipid-mediated gene transfer into primary cultures of hippocampal neurons)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 118 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:849389 CAPLUS
DN 123:248572
TI Adenoviral-mediated method of cell transfection and its augmentation with cationic agents
IN Seth, Prem; Crystal, Ronald G.; Rosenfeld, Melissa; Yoshimura, Kunihiko; Jessee, Joel A.
PA United States Dept. of Health and Human Services, USA; Life Technologies, Inc.
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9521259	A1	19950810	WO 1995-US924	19950124
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
			US 1994-191669 A	19940204
US 5928944	A	19990727	US 1994-191669	19940204
AU 9516886	A1	19950821	AU 1995-16886	19950124
			US 1994-191669 A	19940204
			WO 1995-US924 W	19950124

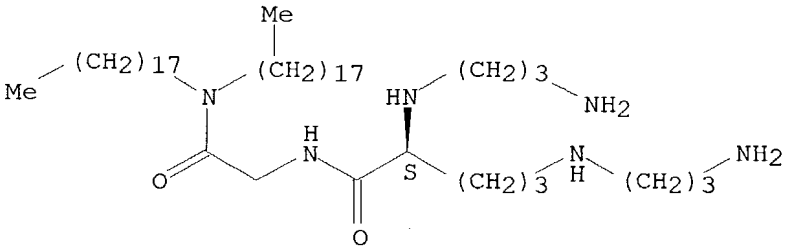
AB An adenoviral-mediated method of transfection with nucleic acids is provided which can be augmented through incubation of the nucleic acids with cationic agents. Specifically, a nucleic acid is introduced into a eukaryotic cell by contacting the cell with, in any order or simultaneously, the nucleic acid and an adenovirus, wherein the nucleic acid is not bound to any mol. capable of effecting its entry into the cell. The cell is preferably addnl. contacted with a cationic agent, such as a monocationic or polycationic liposome, such that the nucleic acid is not bound to any mol. capable of effecting its entry into the cell other than, optionally, the cationic agent. Thus, COS-7, HeLa, and CV-1 cells were efficiently transfected with plasmid pRSVL in the presence of adenovirus 5 (Ad-5), Ad-CFTR, or Ad-dl312. Transfection was not depend on use a particular recipient strain or a particular adenoviral vector. Plasmid pRSVL preincubated with cationic liposomes (Lipofectin) exhibited an augmented level of adenoviral-mediated transfection.

IT **124050-77-7**, DOGS
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(adenoviral-mediated method of cell transfection and its augmentation with cationic agents)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 119 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:808094 CAPLUS

DN 123:208841

TI Complexes of lipopolyamines and nucleic acids for use in the delivery of nucleic acids in gene therapy

IN Behr, Jean-Paul; Demeneix, Barbara; Remy, Jean-Serge; Scherman, Daniel; Schwartz, Bertrand

PA Rhone-Poulenc Rorer SA, Fr.

SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9518863	A1	19950713	WO 1995-FR22	19950109

W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KE, KG, KP, KR, KZ, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ, VN

RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,

TD, TG

			FR 1994-159	A 19940110
FR 2714830	A1	19950713	FR 1994-159	19940110
FR 2714830	B1	19960322		
CA 2180872	AA	19950713	CA 1995-2180872	19950109
			FR 1994-159	A 19940110
AU 9514583	A1	19950801	AU 1995-14583	19950109
AU 707571	B2	19990715		
			FR 1994-159	A 19940110
			WO 1995-FR22	W 19950109
EP 738328	A1	19961023	EP 1995-906377	19950109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
			FR 1994-159	A 19940110
			WO 1995-FR22	W 19950109
JP 09508100	T2	19970819	JP 1995-518346	19950109
			FR 1994-159	A 19940110
			WO 1995-FR22	W 19950109
ZA 9500137	A	19950909	ZA 1995-137	19950110
			FR 1994-159	A 19940110
NO 9602791	A	19960702	NO 1996-2791	19960702
			FR 1994-159	A 19940110
			WO 1995-FR22	W 19950109
FI 9602799	A	19960709	FI 1996-2799	19960709
			FR 1994-159	A 19940110
			WO 1995-FR22	W 19950109
US 5846947	A	19981208	US 1996-666308	19960710
			FR 1994-159	A 19940110
			WO 1995-FR22	W 19950109
US 6172048	B1	20010109	US 1998-160937	19980925
			FR 1994-159	A 19940110

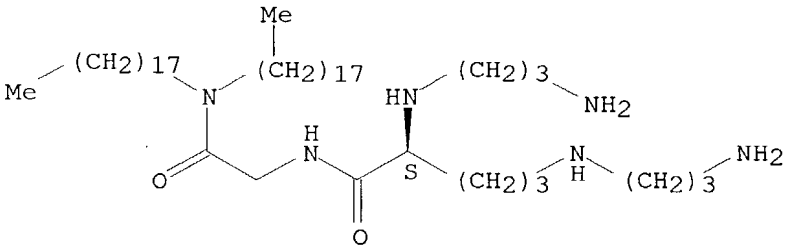
AB Complexes of lipopolyamines [H2N-(-(CH)m-NH-)n-H; m≥2; n>1] and nucleic acids are used to administer the nucleic acids to a patient in gene therapy. Optimization expts. in which a reporter gene is introduced into mouse are described.

IT **124050-77-7D**, DOGS, complexes with nucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes of lipopolyamines and nucleic acids for use in delivery of nucleic acids in gene therapy)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



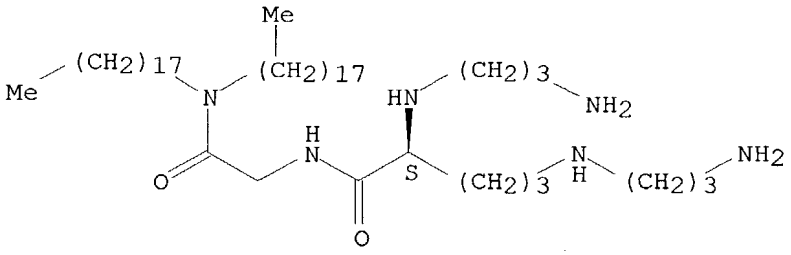
L8 ANSWER 120 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:418026 CAPLUS

DN 122:222579

TI Intracellular enhancement of intact antisense oligonucleotide steady-state levels by cationic lipids
AU Quattrone, Alessandro; Papucci, Laura; Schiavone, Nicola; Mini, Enrico; Capaccioli, Sergio
CS Institute of General Pathology, University of Florence, Florence, Italy
SO Anti-Cancer Drug Design (1994), 9(6), 549-53
CODEN: ACDDEA; ISSN: 0266-9536
PB Oxford University Press
DT Journal
LA English
AB A cationic lipid vehiculation of phosphodiester oligonucleotides enhanced both intact antisense intracellular oligomer steady-state levels and nuclear compartmentation. On the basis of these observations, cationic lipids appear to be suitable vectors for delivering antisense oligonucleotides into the cell, and particularly to the nuclear compartment either as gene- or primary transcript-targeting tools.
IT **124050-77-7**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic lipids as vectors for intracellular delivery of intact antisense oligonucleotides)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

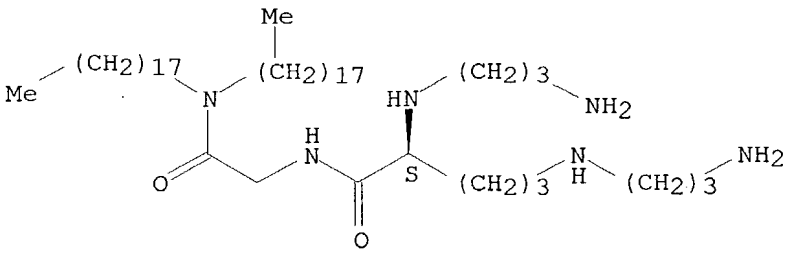
Absolute stereochemistry.



L8 ANSWER 121 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:342854 CAPLUS
DN 122:230037
TI Oligonucleotide delivery in mice
AU Nechaeva, M. V.; Behr, J. -P.; Karamyshev, V. N.; Yakubov, L. A.; Vlassov, V. V.
CS Institute Bioorganic Chemistry, Novosibirsk, 630090, Russia
SO Proceedings of the International Symposium on Controlled Release of Bioactive Materials (1994), 21ST, 377-8
CODEN: PCRMEY; ISSN: 1022-0178
DT Journal
LA English
AB Absorption of phosphodiester oligonucleotides following ocular administration in mice and the use of dioctadecylamidoglycylspermine for local delivery of i.m.-injected oligonucleotide was demonstrated.
IT **124050-77-7**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(pharmacokinetics of oligonucleotide i.m administered with)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI)

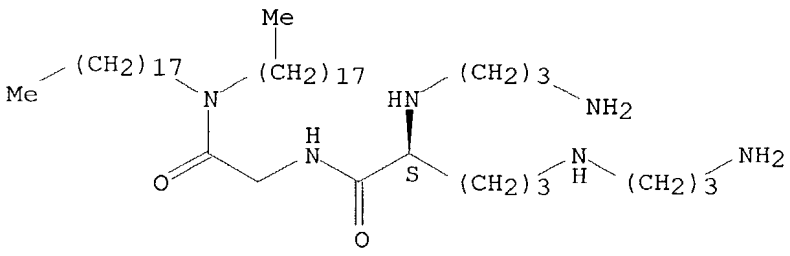
(CA INDEX NAME)

Absolute stereochemistry.



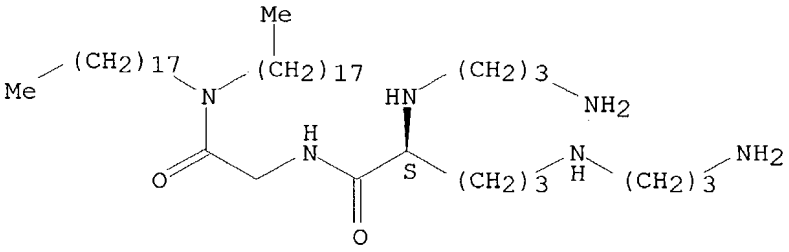
L8 ANSWER 122 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:224724 CAPLUS
DN 122:307559
TI Recombinant f1 phage-mediated transfection of mammalian cells using lipopolyamine technique
AU Yokoyama-Kobayashi, Midori; Kato, Seishi
CS Kanagawa Academy Science and Technology, Kanagawa, 229, Japan
SO Analytical Biochemistry (1994), 223(1), 130-4
CODEN: ANBCA2; ISSN: 0003-2697
PB Academic
DT Journal
LA English
AB Recombinant f1 phages carrying a shuttle vector pKA1M for expression of blasticidin S deaminase were introduced into monkey COS7 cells by mixing with dioctadecylamidoglycylspermine (DOGS). Blasticidin S selection resulted in the detectable growth of resistant colonies within a week. The transfection efficiency depended on the amts. of the phage and DOGS, their ratio, and the time during which the cells were incubated with the phage/DOGS mixture This method requires only several microliters of an Escherichia coli culture medium containing recombinant f1 phage particles and is applicable to various cell lines including mouse NIH/3T3, chinese hamster CHO-K1, and human HT-1080.
IT **124050-77-7**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(recombinant f1 phages carrying a shuttle vector pKA1M for expression of blasticidin S deaminase were introduced into monkey COS7 cells by mixing with dioctadecylamidoglycylspermine)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 123 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:40852 CAPLUS
DN 122:179598
TI Temporal and spatial expression of lipospermine-compacted genes transferred into chick embryos in vivo
AU Demeneix, B. A.; Abdel-Taweb, H; Benoist, C.; Seugnet, I.; Behr, J. P.
CS Museum Nationale d'Histoire Naturelle, Paris, Fr.
SO BioTechniques (1994), 16(3), 496-8,500-1
CODEN: BTNQDO; ISSN: 0736-6205
DT Journal
LA English
AB The authors have optimized a lipospermine-based transfected method for introducing genes into intact vertebrate embryos in vivo. The method employs small amts. of the cationic lipid Transfectam® (DOGS), in a concentrated (40 mM) ethanolic solution, to compact and to transfer exogenous genes into chick embryos during the early stages of development (< 36 h of incubation). Plasmid vectors containing the reporter gene luciferase were used to follow the time course of expression. Luciferase activity was detected as early as 12 h post-transfection and was highest at this time. Enzyme activity then decreased over the next two days and was usually undetectable by 72-h post-transfection. To follow the spatial expression of the exogenous genes, a Rous sarcoma virus (RSV)-β-galactosidase vector was used. When the transfection complex was applied externally around the developing embryo, the main site of expression was the cardiac tissue. Expression could be targeted to the nervous system by micro-injecting the DNA/DOGS (DNA/dioctadecylamidoglycylspermine) complex into the developing brain. The results show that reporter genes can be efficiently expressed in both the developing central nervous system and heart. This raises the possibility that lipospermines can be used to transfer functional genes into embryos during defined periods of development and also to deliver genes in other species and in other in vivo contexts.
IT **124050-77-7**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(DNA complexes; for detection of temporal and spatial expression of lipospermine-compacted genes transferred into chick embryos in vivo)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

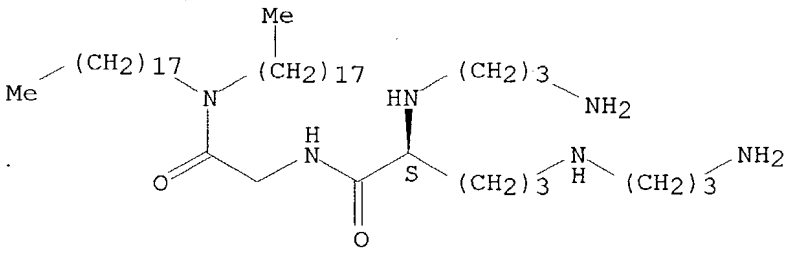
Absolute stereochemistry.



L8 ANSWER 124 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:532403 CAPLUS
DN 119:132403

TI Gene transfer into primary and established mammalian cell lines with lipopolyamine-coated DNA
AU Loeffler, Jean Philippe; Behr, Jean Paul
CS Inst. Physiol., CNRS, Strasbourg, F-67084, Fr.
SO Methods in Enzymology (1993), 217(Recombinant DNA, Pt. H), 599-618
CODEN: MENZAU; ISSN: 0076-6879
DT Journal
LA English
AB The authors describe the use of two lipospermines, dioctadecylamidoglycylspermine and diplamitoylphosphatidylethanolamylsperm ine, in gene transfer. In aqueous solution those compds. spontaneously form cationic liposomes that, on simple mixing with a diluted plasmid DNA solution, condense the nucleic acid into much smaller multimol. particles coated with a cationic lipid bilayer. The authors focus here mostly on transient expression in primary cells, but this technique has been used successfully to transfect some 40 established cell lines or primary tumor cells either transiently or permanently. Expts. on cells of different embryol. origin will be described, and finally the authors illustrate the optimization of this technique on a permanent cell line.
IT **124050-77-7**
RL: USES (Uses)
(DNA transformation mediated by)
RN 124050-77-7 CAPLUS
CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 125 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:246827 CAPLUS
DN 114:246827
TI Preparation of spermine carboxamides containing fatty acyl or fatty alkyl moieties: transfection of eukaryotes
IN Behr, Jean Paul; Loeffler, Jean Philippe
PA Centre National de la Recherche Scientifique, Fr.
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 394111	A1	19901024	EP 1990-401020	19900413
EP 394111	B1	19970604		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
			FR 1989-5037	19890417
FR 2645866	A1	19901019	FR 1989-5037	19890417

FR 2645866	B1	19910705		
FR 2646161	A1	19901026	FR 1989-9933	19890724
FR 2646161	B1	19910705		
			FR 1989-5037	19890417
CA 2014518	AA	19901017	CA 1990-2014518	19900412
			FR 1989-5037	19890417
IL 94077	A1	19941229	IL 1990-94077	19900412
			FR 1989-5037	19890417
AT 154035	E	19970615	AT 1990-401020	19900413
			FR 1989-5037	19890417
ES 2104593	T3	19971016	ES 1990-401020	19900413
			FR 1989-5037	19890417
JP 02292246	A2	19901203	JP 1990-99472	19900417
			FR 1989-5037	19890417
US 5171678	A	19921215	US 1990-509788	19900417
			FR 1989-5037	19890417
US 5476962	A	19951219	US 1994-191068	19940203
			FR 1989-5037	19890417
			US 1990-509788	19900417
			US 1992-922887	19920731
US 5616745	A	19970401	US 1995-477690	19950607
			FR 1989-5037	19890417
			US 1990-509788	19900417
			US 1992-922887	19920731
			US 1994-191068	19940203

OS MARPAT 114:246827

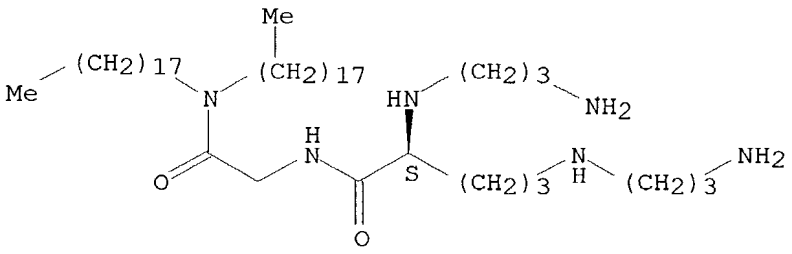
AB H2N[(CHR)mNH]nH [n = 1-5 integer; m = 2-6 integer; R = H, R1R2NCOCHR5NHCO; R1, R2 = C12-22-aliphatic radical; R5 = H, (phenyl)C1-4-alkyl, Q; X = CH2, CO; R3, R4 = C11-21-aliphatic radical] and their analogs and salts were prepared H2N(CH2)3NH(CH2)3CH(CO2H)N((CO2CMe3) (CH2)3NH2 (preparation given) was condensed with H2NCH2CON[(CH2)17Me]2 in methylene chloride containing dicyclohexylcarbodiimide to give, after deprotection with CF3CO2H, H2N(CH2)3NH(CH2)3CH[CONHCH2CON[(CH2)17Me]2]NH(CH2)3NH2·4CF3CO2H (I). The transfection of melanotropic cells with a plasmid containing a chloramphenicol acetyl transferase expression vector via incubation with I in Dulbecco Modified Essential Medium was studied.

IT **124050-77-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 124050-77-7 CAPLUS

CN Glycinamide, N2,N5-bis(3-aminopropyl)-L-ornithyl-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 1 OF 125 CAPLUS COPYRIGHT 2004 ACS on STN